A Lecture
ON
THE CAUSES AND SIGNIFICANCE OF PHANTOM TUMOURS.

Delivered at St. George's Hospital

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GENTLEMEN,—Phantoms, whatever their kind may be, have a certain fascination for the majority of us, even if we are not superstitious. The very word recalls an early time of life when ghosts and other unpleasant things appealed rather strongly to the imagination; moreover, many of us have, later in life, to face phantoms of some sort more often perhaps than we quite care to admit.

To-day I wish to call your attention to a surgical "phantom" which differs from the phantoms of our youth, inasmuch as it is not only visible but palpable—it can be seen and handled. It is what is commonly known as a "phantom tumour." This tumour comes and goes often without obvious reason and generally without method; it is, as a rule, painless, but sometimes it is the cause of great discomfort. The tumour is the result of muscular contraction; it is not in itself a disease, but it is a sign pointing to the existence of abnormal conditions which may be close by or which may be somewhat remote. The characteristics of these tumours are very uniform: they are hard and resistant, smooth, and in shape they conform to that of the muscle, or groups of muscles, concerned; over the abdomen they are always resonant, but less so than the surrounding parietes. Sometimes they disappear during sleep, sometimes they do not; profound anæsthesia always leads to their disappearance. As I have already said, pain in the tumour is generally conspicuous by its absence—the reverse of what happens in muscular contractions occurring in cramp; and it is a little difficult to understand how muscular contraction like that producing a phantom tumour can be, as a rule, so painless, although the contraction may in some cases persist, with certain intervals, for weeks or months, or even longer. The fact, however, is undeniable. The causes of these tumours may be classified in the following way: 1. Irritation.—(*a*) Irritation of the skin or of other superficial parts either immediately over the muscle or muscles concerned or over the course of the nerves which supply them; (*b*) the existence of underlying disease or abnormality—for an example, supposing the tumour to be in the abdominal wall, some disease in the abdominal cavity which, by reason of its situation or relation, causes nerve irritation leading to contraction of a corresponding muscular area (such tumours, when occurring immediately over the underlying disease, are usually "protective"). 2. Occupation.—In a certain number of cases in which the occupation of the individual entails the use of a particular muscle or group of muscles for a long period continuously the muscles concerned come, as it were, into permanent action, and remain hard and enlarged, although the occupation has been temporarily discontinued. These are "occupation" phantoms. 3. Imitation.—In a certain type of neurotic people the tendency to imitate the diseases or deformities of others is very strong. "Nervous mimicry of disease" was the admirable term applied to these cases by Sir James Paget. The nervous mimicry of hip-disease is, perhaps, one of the commonest examples with which we meet of this curious tendency. Tumours are sometimes imitated in the same way, although the scope for the deception is necessarily very limited. These are "imitative phantoms."

Let me now give you a clinical example of each of these types.

IRRITATION PHANTOMS.

Superficial Irritation.—CASE 1.—About six months ago there was admitted into St. George's Hospital under my care a girl, 16 years of age, who presented all the appearances of being the subject of a large abdominal tumour below the umbilicus, and the suggestion had been seriously made that she was pregnant—a fact which shows how important a matter the proper appreciation of a thing of this kind may be. Upon examining the patient as she lay flat on her back the lower segment of the abdomen was exactly of the size and shape of that of a woman seven months pregnant, and nothing more characteristic in the way of outline could have been imagined (Fig. 1). The swelling, however, was resonant, and nothing could be grasped in the way of a tumour inside the abdomen either by the examination of the anterior abdominal region or by bimanual examination per rectum. The affected area of the anterior abdominal parietes, however, could be felt as a rounded, tense swelling very distinctly. The only other obvious abnormality was an area of acute eczema about the lower border of the navel. Bearing in mind what I have just said—viz., that the tumour was resonant and that no mass or disease of any kind inside the abdomen could be detected—I came to the conclusion that the case was one of phantom tumour due to the irritation of the patch of eczema, although, as sometimes happens, the tumour in this case persisted during sleep. The patient was placed under an anæsthetic, and as profound anæsthesia supervened the tumour could be felt to melt away under the hand, leaving the abdominal outline normal. A few hours afterwards, the patient having recovered from the effects of the anæsthetic, the tumour had returned in the same shape and situation as before. The obvious indication

FIG. 1.

Abdominal phantom simulating pregnancy, the result of irritation about the umbilicus (Case 1). From a photograph by Mr. Drake-Brockman.

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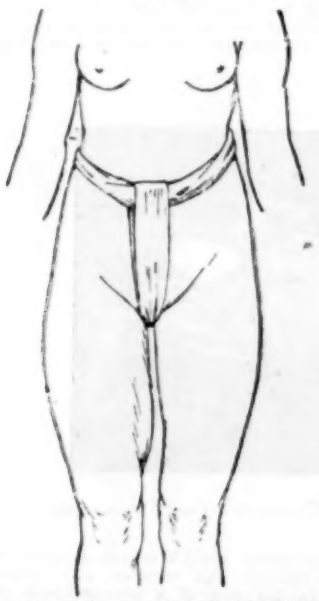
was to cure the eczema; this was, as so often happens, by no means easy, but finally little or no eczema was left, and the tumour was not noticeable. Later, however, the patient returned to the hospital with the eczema rather worse than before, the tumour being somewhat larger than it was when she first came under observation.

CASE 2.—A well-nourished woman, 34 years old, consulted me on account of a swelling along the inner aspect of the right thigh, mainly over the adductor muscles, the shape of which it seemed somewhat to take. The history was one of a slight injury following upon a slip, which caused her to fall rather heavily, a year previously. Some bruising followed and a "bleb" (?) burst high up at the point at which the thigh joins the groin. This gave some trouble and was very slow in healing, as "matter formed." Three months after the injury the swelling of the thigh was first noticed on rising one morning; it was then large and was thought to have come suddenly; neither tenderness nor pain had, as a rule, been felt excepting after much exertion—e.g., a longer walk than usual—when a feeling of great tiredness, stiffness, and aching pain occurred in the swelling which became temporarily larger and harder. The patient was well nourished and presented no appearance of serious disease. Upon examination the inner side of the right thigh was occupied by an elongated swelling along the adductor area extending above to within two inches of the pubic spine; it was hard, elastic, slightly moveable laterally, and seemed to involve the adductor longus muscle, extending downwards along the adductor magnus nearly to its lower end (Fig. 2). A skiagram showed a slightly stronger

FIG. 2.



Phantom tumour on the inner side of the right thigh caused by the irritation of a small suppurating sebaceous cyst under the groin (Case 2).

shadow over the area of the tumour than over the other soft parts. As the peculiar elasticity raised a suspicion of fluid deeply seated several punctures with an exploring syringe were made with, however, a purely negative result, a little normal blood and nothing more coming away. As neither rest nor medicinal means affected the tumour in any degree whatever an exploratory incision was decided upon. The thigh was therefore packed in the usual way preparatory to operation and an anæsthetic was administered. Upon removing the packing and exposing the thigh the tumour had entirely disappeared. I confess that at the moment I was entirely at a loss to explain the disappearance of the swelling, but having in my mind the suspicion of fluctuation which existed I thought that the disappearance might perhaps be accounted for by the bursting of some deep thin-walled cyst whilst the patient was being lifted from her bed on to the operating table after the administration of the anæsthetic, although the disappearance seemed really to be too complete to be accounted for in this way. At any rate, nothing in the way of an exploratory operation was justifiable, and the patient was returned to her bed, nothing having been done. Upon seeing her again later in the day after she had recovered from the anæsthetic the tumour was as large and as manifest as usual. The diagnosis of the tumour as a phantom followed as a matter of course, but no source of irritation could be found excepting the remains of a small sebaceous cyst not quite healed in the vulvo-femoral chink. A little later this sebaceous residuum gave some trouble and was removed. Up to the time of the removal of this remnant of the sebaceous cyst the tumour had remained unchanged, but after the small operation necessary the tumour disappeared spontaneously and four months later had shown no sign of recurrence.

There can, I suppose, be no doubt that in this case the irritation of the sebaceous cyst gave the necessary stimulus for the production of the muscle tumour. The case is the most interesting of its kind with which I have met.

Deep irritation.—CASE 3.—A woman, 45 years old, had suffered for three years occasionally from vague abdominal pains; these, although somewhat diffused generally over the whole abdomen, were as a rule concentrated over the left hypochondriac and lumbar regions. On two occasions there had been very severe attacks of pain accompanied by vomiting with high temperature and on each of these occasions considerable swelling over the region of the cæcum had shown itself, subsiding slowly as the pains disappeared. On one occasion she had been jaundiced for nearly a week, but of this she thought nothing, as she had when quite young had several attacks of jaundice. I first saw her at a time when the pains were worse than usual and confined to the right side of the abdomen. They were not acute enough to cause great distress, but there was some nausea and a slightly raised temperature (100° F.). Upon examining the abdomen the right side moved less freely than the left and over the cæcum was a well-marked swelling a little less resonant than the surrounding area, precisely like that seen in certain cases of appendicitis. There was, however, no great tenderness except at McBurney's point, where moderate pressure elicited acute pain which shot upwards, the swelling at the same time becoming more tense and hard. No other objective abnormality could be detected, but pressure just below the ninth costal cartilage caused the patient to "flinch." The motions were pale but not without bile, and the urine contained a faint trace of albumin. The patient looked ill, was losing flesh, and was clearly the subject of disease of some importance. Upon the subsidence of this slight exacerbation I thought that there was a suggestion of yellowishness about the conjunctivæ but it was too faint to be of consequence. The diagnosis was clearly doubtful, but it seemed to lay between appendicitis and gall-bladder trouble. It was manifest, however, that surgical interference was necessary, and I therefore opened the abdomen by an incision which would enable me to examine the appendix and gall-bladder. The appendix and the parts about it were perfectly normal, the gall-bladder was contracted, connected by inflammatory adhesions to the liver and duodenum, and contained a small pyramidal stone impacted in its duct. The stone was removed (the gall-bladder having first been freed from adhesions), the opening was sewn up, and the abdominal wound closed by fish-gut sutures in the ordinary way. A severe attack of jaundice supervened upon the operation and was slow in subsiding although it ultimately disappeared. The patient recovered from the operation without any drawback and six months later was perfectly well in all respects. The swelling over the cæcal region never became manifest after the operation.

This case is interesting inasmuch as it shows how very misleading a phantom may be when it is remote from the irritation which gives rise to it, and it is further of interest as it, together with the next case, shows the fallacy of trusting to tenderness over McBurney's point as a sure sign of appendix disease.

PROTECTIVE PHANTOMS.

These are irritation phantoms, but they differ from those just described, inasmuch as the phantom immediately overlies and conceals the true disease beneath—"protective" is

therefore a convenient name by which to describe them, as they protect the underlying condition from pressure, &c. They are practically confined to the abdominal wall.

CASE 4.—A young married woman, three months pregnant, was admitted into Wright's Ward under my care about 18 months ago on account of what was said to be appendicitis. It was the first attack of the kind from which she had suffered, and the history, although somewhat vague, seemed to point to the disease referred to. Upon examining the abdomen there was found a very distinct globular tumour in the right iliac region such as is frequently seen in appendicitis. The tumour was resonant but slightly less so than the surrounding parietes; "sub-resonant" would be a fair description of the result obtained by percussion. There was general pain over the lower abdominal region and some tenderness concentrated over McBurney's point; no deep pressure was tolerable, as the tenderness was so acute. The temperature was high (104° F.), a rigor was said to have occurred, and the patient was apparently in a serious condition. My impression was that the case was not one of appendicitis, but still on the whole I thought it better to operate as if for that disease. The patient was therefore anæsthetised in the usual way and upon removing the antiseptic packings the tumour was found to have entirely disappeared. This confirmed me in my impression that the case was not one of appendicitis, for although in certain cases of appendix disease *some* of the obvious swelling is of the phantom kind and disappears under profound anæsthesia I have never in appendicitis seen the *whole* of the swelling disappear. I felt pretty sure that the objective swelling was a "phantom" connected with some pelvic disease, although nothing abnormal could be felt on palpation either through the abdominal wall or per vaginam. I operated as if for appendicitis and found the appendix and cæcum quite normal. Upon examining the right ovary it was a little enlarged, bright red in colour, with several white patches scattered over its surface; on pricking one of these a drop of pus came away. The ovary was removed in the usual manner and the abdominal wound was closed. The patient recovered rapidly and was up and about in a fortnight. The ovary when it was examined after its removal was found to be in a condition of acute inflammation with spots of commencing suppuration scattered throughout its substance.

Acute suppurative ovaritis during early pregnancy is rare, but some cases have been recorded.

The commonest protective phantom is probably that which occurs in certain conditions of the liver, and is of a good deal of importance as it is more commonly mistaken for hepatic abscess than is generally supposed. The next case provides an example.

CASE 5.—A soldier, 38 years old, was invalided from South Africa with disease of the liver, the history and signs of which pointed strongly to abscess, and immediately upon landing (April 23rd, 1901) he came under my care with a view to immediate operation. He was a colonial who had been in South Africa from the beginning of the war and had remained well until nine months before he arrived in this country. The illness commenced apparently with an attack of dysentery of a mild type. After this he never felt well; he had frequent attacks of "fever" (? malarial) with rigors and rapid loss of flesh. For six months there had been constant pain about the liver, sometimes better, sometimes worse. For about the same time there had been tenderness, sometimes extreme, below the ribs on the right side. For two months there had been jaundice which for a fortnight had been intense. Upon coming under observation the patient was greatly emaciated and looked very ill. The skin and conjunctivæ were of a deep yellow tint, and the motions were void of bile, which was present in the urine in great quantity. The temperature ranged from 101° F. in the morning to 104·5° at night. Two-thirds of the abdominal cavity was occupied apparently by a very large liver which on the right side reached to within one inch of the iliac spine; it was generally smooth except at a point which corresponded to the upper segment of the right rectus muscle where a prominent tumour bulged forwards. This tumour was dull and elastic and upon very gentle pressure was extremely painful; moreover, upon pressure the bulging part became harder to the touch. There was some general tenderness over the whole of the large liver, but only of a moderate degree. By some who felt it the bulging portion seemed to fluctuate, but of this I could not satisfy myself. An abdominal exploration was clearly indicated, so the patient was prepared for operation in the usual way and the anæsthetic was administered on the bed, the patient being afterwards lifted on to the operating table. Upon removing the antiseptic packing it was seen that the bulging portion of the tumour had entirely gone and that the enlarged liver presented a uniformly smooth surface. I concluded at once that the tumour was a phantom, but as there was a possibility that its disappearance may have been due to the bursting of an abscess I opened the abdomen through the site of the previously bulging part. No abscess or inequality of the large liver existed and its surface was perfectly smooth. I have never seen so large a liver exposed by operation; it seemed to occupy the best part of the abdominal cavity, the intestines being pushed down to a small space in the left iliac region. On the surface it was rather darker in colour than normal; to the touch it was very hard. It was punctured in all directions by a long trocar and cannula, but nothing but blood came away. In all, 14 punctures were made. Free hæmorrhage followed each puncture but stopped spontaneously. The abdominal wound was closed by fish-gut sutures and one grain of calomel night and morning was prescribed. The patient recovered rapidly from the operation. The temperature became normal at the end of 10 days, and on August 18th, when last seen, the patient was apparently well. All jaundice had gone, he had gained nearly two stones in weight, and the liver, almost of normal shape, extended only two inches below the ribs. The bulging area in this case was clearly a "phantom" in the rectus muscle

The case was remarkable in many respects, but the only point which I wish to emphasise here is the way in which the bulging phantom simulated the coming forward of an hepatic abscess. As I have already said, these supra-hepatic phantom tumours are of much more importance in relation to the diagnosis of liver abscess than is commonly supposed.

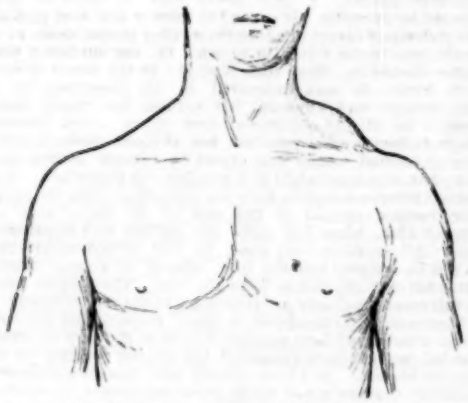
OCCUPATION PHANTOMS.

These are unusual, and their diagnosis is not always easy. The following case affords a remarkable example.

CASE 6.—A man, whom most of you must well remember, was admitted under my care a short time since into the Fitzwilliam Ward; he was a compositor, 35 years of age, a very spare and sober man. Two months before his admission, as he was suffering from a bad cough, which he had been told was due to consumption, he applied for treatment at the Brompton Hospital for Consumption, and was there told that nothing of consequence was wrong in his chest, but his attention was called to a tumour above the left clavicle, of the existence of which he was previously quite ignorant. Now, it so happened that his wife was the subject of carcinoma of the breast of a most painful kind, and the discovery of the tumour came upon him as a considerable shock, mainly by reason of his wife's condition, which led him to think that he might be suffering from a cancer. The patient's thoughts now became concentrated upon this tumour with the result that first it became painful and then that it steadily grew—at least, that was his firm conviction. He consequently came to St. George's Hospital for advice and treatment. Upon examination there was occupying the left subclavian region a very distinct tumour which to the touch was as hard as bone; it was not tender, but a constant aching pain was complained of which at times shot down the arm like a "sharp toothache" (Fig. 3). Taking into consideration the health of the man and the feel of the mass the first impression naturally was, especially as the subclavian artery was very high in situation, that the swelling was due to the growth of an exostosis or to the existence of a "cervical rib." A skiagram, however, showed nothing whatever abnormal about the bony parts, nor did it show anything suggestive of sarcoma. A further inquiry into the man's history at this stage elicited the following interesting facts. In the course of his work as a compositor the patient was in the habit of holding in his left hand daily, and often for hours together, a "stick" which held the type which he was using, and he stated that for some time he had become unusually tired about the shoulder whilst at work, and he knew that when he was tired he was in the habit of holding the shoulder very high, as the change of position relieved him temporarily to some extent. The man's anxiety was so great that nothing short of an operation of some kind would satisfy him, so after he had been prepared in the usual way he was anæsthetised with a view to operation, although, as I was fortunate enough to say at the time, I should not have been surprised

to see that the tumour had disappeared upon complete anæsthesia. Upon removing the antiseptic packing no vestige of a tumour could be seen or felt and the parts were absolutely normal. The patient was therefore sent back to bed without operation. For a week subsequently, the patient being apparently much relieved at escaping operation, the tumour was absent and he left the hospital apparently cured. Soon after leaving his apprehensions again returned and he came

FIG. 3.



Occupation phantom tumour over the left subclavian region in a compositor (Case 6). From a drawing by Mr. P. L. Mummery, F.R.C.S.

up a fortnight later with the tumour in its original condition. So great is his distress and anxiety about the matter that I have promised him a little later to cut down and really *feel* whether anything wrong is present or not. There is nothing in the way of a tumour, but the moral effect of the operation may possibly cure him, although it is by no means certain that it will.[1]

The case, as I have said, affords an excellent example of a phantom tumour resulting from continual overstrain of a certain set of muscles. It also shows how a harmless condition, painless and unknown to the patient, may become after its existence has been pointed out a source of the gravest trouble merely from apprehension which has arisen in the mind of its possessor as to its nature. I have seen no other case quite like this, but one something like it occurred in a man who was occupied daily for many hours together in pulling a lever with the hand raised high above his head. In that case a large elongated tumour occupied the side of the neck from the mastoid process downwards; it was rather hard, but elastic, giving a suggestion of fluctuation as muscle sometimes gives; it disappeared during sleep and gave no pain.

IMITATIVE PHANTOMS.

These are the rarest of all, and so far as I know they are limited to the abdominal parietes. The only characteristic case to which I can refer is one which occurred a long time ago. In the year 1885 a man of middle age was admitted under my care into the Hunter Ward with retention of urine. He had no stricture, and the passage of a catheter, resulting in the withdrawal of one and a half pints of urine was perfectly easy, but in spite of this there still remained a large oval tumour resembling a distended bladder which extended almost to the umbilicus and produced a peculiar projecting contour of the lower part of the abdomen. Upon examination this tumour was clearly lying between the bladder and rectum and was obviously the cause of the retention. Upon operation it proved to be a large dermoid. Recovery followed in due course. Before leaving the hospital the patient asked me if I would look at his boy, as his abdomen was exactly the same shape as that of the patient before his operation. I therefore saw the boy, who was 13 years old, and the father's statement was perfectly true—the boy's abdomen was precisely like his father's before the operation, which naturally suggested the existence of an hereditary dermoid. The prominence of the abdomen was unchanged by position, being quite as evident in the recumbent position as in the erect, and at the same time no tumour could be detected by palpation or percussion. An anæsthetic was therefore given and upon complete anæsthesia the abdominal prominence entirely disappeared, the contour being flat and normal in every way; nothing abnormal of any kind could be detected. Upon inquiry it was elicited that the boy had been helping his father, who was a carpenter, since he was eight years old and was constantly "joking" his father about his peculiar shape, and frequently he walked about imitating the attitude, &c. There is, I think, no doubt that the boy's peculiar shape was due to a phantom the result of his unconscious imitation of his father's peculiarity. Whether the boy's peculiarity in shape disappeared afterwards I cannot say, as although he promised to show himself again he never did so. I fancy the fear of a possible operation must have kept him away.

DIAGNOSIS.

So far as the cases which I have mentioned here are concerned very little comment is necessary, as they speak for themselves; they afford characteristic examples of the condition of which I am speaking and are worthy of your careful consideration. As I have already said, a "phantom" tumour is not a disease in itself, but merely the sign of some concurrent disease or eccentricity to which the tumour is due. When caused by mere local irritation the source of irritation may be immediately in relation with the phantom or it may be more or less distinct and remote from it. As a rule, the nature of the cause of the phantom cannot be determined until the phantom itself has been allowed to subside under an anæsthetic. At the same time, it must be understood, especially in abdominal "phantoms," that a tumour may be partly real and partly phantom. Such is the case sometimes in appendicitis when the administration of an anæsthetic is followed by a partial diminution in the tumour.

When a tumour is found of doubtful origin, especially if it be discovered accidentally, which is hard, somewhat elastic, and of a form such as may arise from the contraction of a muscle or sets of muscles, the possibility of a "phantom" must always be held in mind, more particularly when, if the tumour occurs on the abdomen, it is resonant or nearly so. In the majority of cases it is impossible to determine with certainty whether the tumour is or is not a phantom without the aid of profound anæsthesia; examination during sleep will sometimes settle the point, but it is not always easy to carry out the necessary inspection. Moreover, some of these tumours persist during sleep. In the examination of cases of this kind under an anæsthetic there is a detail of much importance to which I wish to call your attention, as I do not think you will find it mentioned in any published work. The examination of the part should not be postponed until profound anæsthesia has been produced, but the hand should be placed gently upon the tumour from the time of the commencement of the giving of the anæsthetic. If the tumour is a phantom it will be found during the early stage of the production of anæsthesia to increase a little in size and hardness. With the oncoming of complete anæsthesia a little vibrating or quivering motion will be felt and then the tumour will perceptibly melt away gradually under the hand. *Such tumours never disappear suddenly.*

The importance of the knowledge as to whether a tumour disappears under an anæsthetic suddenly or whether it goes by degrees is considerable; for an example take Case 2, which I have described; if during the administration of the anæsthetic I had placed my hand upon the tumour I should have noted the changes to which I have just referred and should not have fallen into the foolish error of thinking that the disappearance of the tumour might have been due to the bursting of a deep cyst. The only reason for not adopting my usual precaution was that the part being packed for operation I did not wish to disturb the packing until the actual time of operating; and, indeed, the possibility of a phantom in that case hardly at first suggested itself. Fortunately, no disadvantage was suffered by the patient from the omission in this case. Under some circumstances, however, the result may be otherwise. It must have occurred, I suppose, to all surgeons to find now and again that an abdominal tumour for which all preparations for operation have been made has disappeared during the administration of an anæsthetic, and such tumours are usually supposed under these circumstances to have slipped

[1] Tumours resembling this are sometimes seen in certain cases of scoliosis, but this man's spine is perfectly normal.

back into the remoter parts of the abdomen and so for the time being to have disappeared. That tumours, especially if they be moveable kidneys, sometimes do this is a matter of common knowledge, but the tumour which has vanished under the anæsthetic may have been a phantom. The diagnosis here is a matter of great importance from the point of view of treatment. Suppose, for instance, that in a case of this kind whilst the surgeon's hand is on the tumour during anæsthesia it *suddenly slips away;* the evidence of a positive tumour is sure and would not interfere with the progress of the operation. If, on the other hand, the tumour melts away gradually as a phantom does, the question of procedure would require consideration, and careful search should be made for any possible source of irritation before proceeding to extreme measures. It is curious how very slight an irritation in some subjects will produce a phantom tumour, especially of the abdominal wall, notably in the region of the rectus. By a little rough manipulation with the points of the fingers a very typical phantom can often be produced in the segment of the rectus above the umbilicus which will persist for some hours. This leads me to impress upon you a very elementary surgical detail—viz., that in examining any part of the body the warm hand should always at first be placed flat upon the part. If by chance the use of the finger ends are necessary in the diagnosis, they should be employed so that the flat of the pulps of the fingers, and not the extreme tips, are in contact with the part. The pain, muscular rigidity, and other difficulties caused by the indiscriminate manipulation by cold hands and by the finger tips account for many errors in diagnosis. I have called your attention to this point more than once previously in these lectures, and I should have had some hesitation in dwelling so strongly on it now had it not been that I have seen practitioners in other respects competent and reliable, and candidates at examinations otherwise good, apparently quite oblivious to the importance of this very elementary principle in diagnosis.

TREATMENT.

On this head there is not much to be said. The obvious indication in the irritation phantoms is to cure or to remove the source of irritation, if it has been discovered. In the occupation phantoms rest from the usual occupation as a rule gives temporary relief only; a change of occupation is nearly always necessary. When these tumours are persistent even after a change of occupation the discriminating use of electricity with massage is of much advantage. The imitative phantom is generally of little real consequence; the only treatment is the removal of the patient from association with the person imitated, the existence of the spurious tumour being entirely ignored. Galvanism vigorously applied may be a useful adjunct when the results of the condition are sufficiently serious to make methodical treatment necessary.

Some interesting phantom tumours are prone to result from the rather exaggerated physical exercises now in vogue; they hardly, however, come within the scope of the present lecture. I have also intentionally omitted any reference to the temporary tumours, which are not true phantoms, sometimes resulting from erratic distension of hollow viscera, as well as to those muscular tumours producible at will by tricksters and malingerers. On a future occasion, should the opportunity arise, I may speak of them, as they are of some practical importance.

SEWAGE DISPOSAL AT DEVIZES.—At the meeting of the Devizes Urban District Council held on Dec. 20th, 1901, it was decided to supplement the present system of sewage disposal (which is that of treatment of the sludge by chemicals) by adapting the existing works to Dibdin's open contact beds. The estimated cost was stated to be £6900.

VACCINATION EXPENDITURE.—At a meeting of the Cardigan Board of Guardians held on Dec. 23rd, 1901, an adjourned discussion upon the increase of the expenses in connexion with the Vaccination Act took place. It was stated that before the present Act came into operation the expenditure was £46 per annum, but now the amount was £197 per annum. This was said to be due to the abolition of central stations and to domiciliary vaccination. The guardians resolved to petition the Local Government Board to initiate such statutory modification of the Act as will enable the re-establishing of vaccination stations.

A Clinical Lecture
ON
THE GENERAL PRINCIPLES OF TREATMENT OF DISEASES OF THE SKIN.

Delivered at the Royal Free Hospital on Oct. 18th, 1901,

BY WILLMOTT EVANS, M.D., B.S.,
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IN the treatment of diseases affecting the skin it is of the first importance to recognise that dermatology is nothing more than a part of general medicine. It is true that as the skin differs to some extent in its structure and in its physical conditions from the other tissues and organs of the body, its morbid manifestations are not identical with those met with in other parts of the organism; therefore, in a way the diseases of the skin are peculiar to it, but they are similar to the diseases met with elsewhere. On the whole, the pathology of cutaneous diseases is practically identical with general pathology, and the treatment is a part of general therapeutics. Moreover, it must not be forgotten that many so-called diseases of the skin are merely outward manifestations of internal morbid conditions. In these it is obvious that to concentrate the attention unduly on the cutaneous lesion will result in a neglect of the underlying disease of which it is nothing more than the outward expression.

The importance of care in diet in disease of the skin is generally recognised. It is in the first place certain that some skin diseases may be produced by food; one of the best instances of this is urticaria, which is most commonly produced by the ingestion of fish—especially shellfish; but in certain cases many forms of food may give rise to it. Usually there is an idiosyncrasy on the part of the patient which enables articles of diet otherwise harmless to cause the urticaria, but certain conditions of the food also may excite the appearance of the urticaria—for instance, food that is not perfectly fresh is much more prone to give rise to the wheals; in the latter case we are justified in thinking that some chemical changes must have occurred in the food and that the chemical substances produced are the cause of the disease. There are many other affections of the skin which can also be traced to the diet, though in none is the connexion so striking as in urticaria. Thus as in health food may cause disease of the skin, so when the skin is diseased the nature of the food may maintain or increase the severity of the skin lesion. Errors as to the quantity of the food, even though the quality be unexceptionable, are also very liable to produce or aggravate diseases of the skin. The method of cooking, moreover, and the time at which the food is taken, may be of great importance in the prevention or cure of cutaneous disease. All these points must be taken into consideration in arranging a diet.

A dieting for a disease of the skin does not necessarily mean semi-starvation. The food should be so regulated both in quality and quantity that its digestion is ensured. Especially, however, should the patient beware of taking any food, whether solid or liquid, which experience has shown does not agree either with his digestion or with his skin. It is customary to give lists of foods which should be avoided by those who suffer from cutaneous disorders, and there is much justification for the drawing up of these tables; but it must be distinctly understood that they cannot be of universal application. Carbohydrates in excess are certainly injurious and it is therefore advisable that they should be taken only in moderation. Pastry especially should be avoided, for it consists of an intimate mixture of carbohydrates and fat, which experience has shown to be especially hurtful. Fat in itself appears to have a beneficial action on the skin, but it must be taken in a digestible form. Probably it is most easily digested in the form of the fat of meat.

I have hitherto referred only to solid articles of food, but the liquids consumed are of at least equal importance. Alcohol is harmful even in small quantities in many skin

diseases. It acts both by its influence on digestion and by causing cutaneous hyperæmia. It does least harm when taken with food and when the percentage of alcohol present is small. On the whole the lighter wines are less prejudicial in their effects than other forms of alcohol, but spirits (except when well diluted), champagne, and beer should be avoided. Tea frequently does much harm, chiefly because it is taken in excess and apart from food; it is also often infused too long. Coffee and cocoa are less injurious, but these, too, should be taken in moderation.

I may mention now the influence of tobacco. The connexion between disease of the skin and tobacco is not so obvious as in the case of alcohol, but I have little doubt of the harmful effect of tobacco, especially in excess; caution on the part of the patient in this respect is therefore advisable.

There are, however, other ingesta deserving notice, as they can give rise to disease of the skin. These are drugs. Many medicines have the power of evoking skin manifestations even in those who are in health, and still more likely is the skin to be affected in disease, so that the possibility of some part of the lesion being the result of medication must always be borne in mind.

The climate and air have much influence on many diseases of the skin. On the whole, a fairly dry inland situation is best for these cases, for sea air is very irritating in many forms of eczema; but for conditions in which the general nutrition is impaired, as in lupus, sea air may have a markedly beneficial effect. It is difficult to lay down general rules on the subject and each case must be treated on its merits.

The effect on cutaneous disease of soap and water is so important as to require special mention. Even in health frequent washing damages the skin by depriving it of much or all of its natural fat, so that it becomes unnaturally dry and also probably more easily invaded by parasitic micro-organisms. The effect is still more harmful in disease. Except in the skin diseases due to the animal and some of the vegetable parasites washing is of no therapeutic value, and in many morbid cutaneous conditions, especially in eczema, it may be exceedingly harmful. Where washing cannot be avoided the injurious effect of the water may be to some extent mitigated by the addition to it of oatmeal or gelatin, so that a demulcent action is exerted on the skin. In cases in which washing is admissible the choice of a soap is generally not difficult. That soap is beneficial to the individual patient the use of which is not followed by redness or smarting. It is hardly necessary to say that there is no soap that far surpasses all others. Of recent years superfatted soaps have been introduced, and they are certainly less irritating to most skins; they are not, however, so pleasant to use, and naturally their detergent effect is less. Of medicated soaps I have little to say, as I do not consider soap to be a convenient vehicle for the application of drugs except in very peculiar cases.

We now come to the more directly therapeutic part of the subject. It is obvious that if the general health be impaired we should endeavour to restore it, although we may be unable to recognise that any causal connexion exists between the general condition and the cutaneous lesion. The digestion should be treated if dyspepsia be present, and any abnormal condition of the bowels, such as constipation or diarrhœa, should be corrected. In many cases, however, the general health appears to be perfect.

There is a very definite opinion prevalent amongst the public and held even by some medical men that there is some risk in curing a disease of the skin. The eruption and the discharge from it are imagined to be beneficial and it is thought that if these are removed then the disease is "driven inwards" and produces very serious symptoms. These ideas were formerly very widespread among the medical profession and they are to be found in all the older works on dermatology. Yet at the present time it cannot be said that we have any definite facts to support such an opinion. It is known that in some of the specific fevers, if the rash does not come out well, or if it recedes, the constitutional symptoms tend to be more severe and a fatal result often follows. This is probably the foundation or part of the foundation for the idea that the rapid removal of a cutaneous malady may give rise to severe internal disease. Possibly since the skin is a great excretory organ the cessation of its secretion may cause the retention in the body of noxious substances, but of this we know very little. At all events, no apprehension of doing harm to the patient need deter us from removing as speedily as possible a disease of the skin.

An accurate diagnosis is the first essential for the satisfactory treatment of skin diseases, as of disease in any other part of the body. Our aim in treatment should be to remove the cause of the disease, if possible; but if the cause is unknown or if it cannot be removed we must treat the symptoms, and even when the cause is known and the disease is readily amenable to treatment the symptoms, or some of the symptoms, may need treatment, either because they are especially distressing to the patient or because it is not possible to remove the cause immediately. For instance, it is sometimes necessary to treat the itching of psoriasis because it may be very troublesome in itself, although we can in a few weeks or months completely remove the disease. It must not be imagined that when we know the cause the treatment which is the most obvious is necessarily the best. Many cutaneous diseases are now known to be microbic in origin, yet the direct application of antiseptics will in many cases not lead to recovery. Indirect methods are thus sometimes indicated.

The treatment of a disease of the skin may be internal or external. At one time the internal treatment was considered of very great importance in all forms of cutaneous disease, while external applications were thought to be of much less importance. On the whole the recent tendency has been to exalt the efficacy of external treatment and to discredit somewhat internal medication. It should be obvious from even a superficial study of the etiology of the diseases of the skin, even so far as we are acquainted with it, that in one disease internal treatment and in another external treatment must be of the most value, but in nearly all diseases of the skin both methods of treatment are desirable or even necessary.

Here seems to be the most convenient place to speak of the use of the natural mineral waters in dermatology. I think there can be no question that their value has been overrated. Doubtlessly in some cases the pure air, the simple diet, and the early hours observed at a spa contribute materially to the improvement of the condition of the skin, but it is improbable that the mineral waters themselves have any more than a very slight beneficial effect. Yet there is a very general opinion that these waters are of great efficacy, but disappointment will almost certainly follow any very exalted expectation of the benefit likely to result from their employment.

I have no intention of considering all the drugs which may be administered in cutaneous disease, but I think it well to say a few words on one of them—namely, arsenic. For many years arsenic has been looked upon as the special drug to be employed in many skin diseases, and, in fact, many medical men administer arsenic in almost every case of disease of the skin with which they have to deal. Yet, curiously, those who have most to do with the treatment of cutaneous disease employ the drug comparatively rarely—in fact, I am inclined to think that they employ it more rarely every year that goes by. Some 30 or 40 years ago a Mr. Thomas Hunt advocated the administration of arsenic in all skin diseases; he gave it very systematically and for very long periods, even for many years. This very prolonged use of arsenic is not common nowadays, yet at the recent Dermatological Congress in Breslau one speaker maintained that arsenic could not be said to have failed until it had been administered for several years. Arsenic is indeed of value, even of great value, in several cutaneous disorders, for instance, in psoriasis, pemphigus, and lichen planus, but its action is by no means certain; it is often slow in manifesting itself and the drug cannot or should not be given if the skin is distinctly inflamed, for it increases the inflammation and may cause the spread of the disease which it was intended to cure. Moreover, arsenic is capable of giving rise itself to morbid changes in the skin; not only does it increase, as I have said, any inflammation which is already present, but when the drug is administered for a prolonged period, even in small doses, the skin becomes pigmented, and on the palms and soles great thickening of the epidermis occurs, and in a few cases multiple epitheliomata have developed. Enough has been said to show that arsenic should not be given unnecessarily or hastily; indeed, as a rule arsenic should only be tried late in a disease, when other modes of treatment have failed. There is no other drug about which I think it necessary to speak in this connexion, for there is no other which has been so misused as arsenic.

With regard to the external remedies the dermatologist has an extensive choice. Baths are in certain cases of great value. In no other way is it possible to obtain so thorough an action on the skin, but, on the other hand, there is the risk of the absorption by the skin of substances from the bath, so that a bath should never contain any substance the absorption of which might be dangerous. "Permanent" baths, in which a patient is immersed for days or even weeks, are but little used in this country and though occasionally of great use they are troublesome and are of very limited application. The capacity of an ordinary bath is about 30 gallons, and the quantity of drug to be added must be calculated for that amount. Many modern baths, however, do not hold much more than 20 or 25 gallons, so that a little less medicament should be ordered.

Ointments are certainly more frequently prescribed than any other form of application, and they are very convenient, especially when inunction is required, but they are uncleanly and may often usefully be replaced by other applications. Ointments are usually at the present day made up with hard and soft paraffin. These keep well, never becoming rancid, and therefore do not tend to irritate even though they have been made long previously. This advantage does not appear to me to be of any great moment, for ointments are better for being freshly prepared, but the animal and vegetable fats seem to me to be much better suited for ointment bases than the paraffins, and I think that a drug made into an ointment with a basis of fat is able to exert a deeper effect on the skin. It is important for you to bear in mind that ointments containing mercury and its salts must not be applied over too large an area as there is great risk of absorption. Ointments are not suited for any condition in which there is a large amount of exudation, for this exudation raises the ointment from the surface of the skin and to a great extent prevents it exerting its effect. When there is a profuse secretion from the skin lotions and dusting powders are suitable. When lotions are applied it is generally advisable to keep the part continuously moist, but no oil-silk should be applied over the dressing. Dusting powders act chiefly by absorbing any exudation that may be present. They have to be used freely to obtain the best effect, and are hardly suited for patients who have to go about their work. Traumaticin, which is a solution of gutta-percha in chloroform, forms a very convenient vehicle for many drugs. When painted on the surface of the skin it dries quickly and forms an impermeable covering, which maintains the medicament in close contact with the part and at the same time effectually prevents any staining of the clothes. Bassorin and gelanthum are two very pleasant bases. They can be smeared on the skin, and in a short time they dry and form a closely-adherent pellicle, which is, however, readily soluble in water, so they can be removed quickly. Unna's plaster muslins and salve muslins are useful vehicles when it is desired to obtain the prolonged action of a drug on a part. Pastes are also of value as they allow an exudation to make its way through them and they are therefore often superior to ointments. Pastes are practically composed of a combination of an ointment with a powder.

I need say but little of surgical treatment, scraping, excision, skin-grafting—all have their place in dermatological therapeutics—nor need I here describe the treatment of disease of the skin with light or the Roentgen rays; they are both of them of considerable value in suitable cases. You will find that as the disease varies from time to time so will it be necessary to alter the drugs employed and the mode of their application.

Finally, I might suggest that to become well acquainted with the therapeutics of a few substances and the best mode of employing them will be better than to make a hasty inconclusive trial of every new preparation or treatment that is devised.

HOSPITAL FOR EPILEPSY AND PARALYSIS, REGENT'S PARK.—In aid of the funds of this hospital there will be an amateur production of a new and original four-act play (for the first time in London) entitled *The Scarred Hand*, by Val de Garno and Leopold Montague, on Monday, Jan. 13th, at St. George's Hall, Langham-place, W. We understand that the per-name of Val de Garno veils more or less closely the identity of a member of the medical profession and that the play itself, which has had considerable success in the provinces, possesses a strong medical element.

A Clinical Lecture

ON

SEVENTEEN CASES OPERATED ON FOR SO-CALLED "INTERNAL DERANGEMENT OF THE KNEE-JOINT."

Delivered at University College Hospital

BY ARTHUR E. J. BARKER, F.R.C.S. ENG. AND IREL.,

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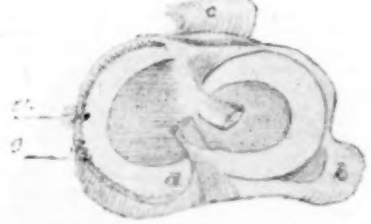
GENTLEMEN,—It so happens that an interesting group of cases of "internal derangement of the knee-joint" has comparatively recently been operated on in my wards at University College Hospital. These are well deserving of study, helping us as they do to understand something of the pathology, clinical history, and treatment of this affection. But for any safe generalisation on these points we must take larger numbers. To this end I have looked up the notes of all the cases which have fallen to my lot for operation within the past five years or so in hospital and added some seven on which I have operated in private during the same period. All these, taken together, in which the joint has been opened are safer guides than others treated by palliative measures in which the structures involved have *not* been seen and in which the actual details of the lesions must accordingly remain to some extent doubtful. Of the latter, of course, one sees a much larger number; for it must be obvious at once to anyone who goes into the matter that all cases of "internal derangement of the knee-joint" do not require operation.

Now, first of all, what is meant by the title just employed, which was, I believe, first used by Mr. Hey of Leeds many years ago? Although the usual name now given to the condition described formerly as "internal derangement of the knee-joint" is "dislocation of the semilunar cartilage," it becomes quite clear to anyone who sees many cases of the lesion in open joints that there are several varieties of displacement, both as to position and degree, included under the term. It is important to bear this in mind, inasmuch as the same treatment is not applicable to all. In order to obtain some clear notion on these points let us glance at what has been actually seen when operating on the joints in this group of cases alluded to. In the first place, the cartilage affected has been in every case the *internal*. And in the many other cases which I have seen but not operated on there has been clear evidence that the internal meniscus was the one at fault in all but one doubtful case. This may be only a coincidence, but it is at least significant. The next point observed was that the semilunar cartilage was in all these

FIG. 1.



"Peripheral complete." The serrated line indicates the rent. *a*, Internal lateral ligament. *b*, Head of fibula. *c*, Ligamentum patellæ. *d*, Internal meniscus. *e*, Jagged line indicates the position of rent in "complete" peripheral separation.

cases split in the direction of its fibres, which run, as is well known, in a semicircle. In none of them was the cartilage torn across at any point between its two ends. Such lesions are said to occur, and I know of one most competent observer

who has met three times on opening joints with an internal meniscus torn off at its anterior insertion (Körte). These cases, oddly enough, were the only ones he had operated on. The splitting, however referred to has taken place in my own cases in varying situations and in varying degrees as seen clearly when the joints were freely opened.

In the majority of cases the rent has been found at the

FIG. 2.

"Central complete." The serrated line indicates the rent. *a, b, c, d*, as in Fig. 1. *e*. Jagged line indicates the position of rent in "central splitting."

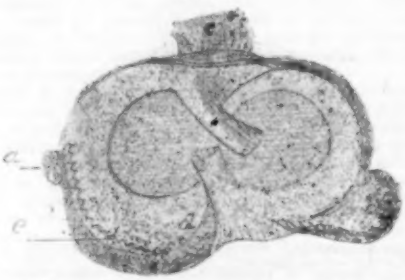
peripheral attachment of the meniscus to the capsule and periosteum. Let us call this a "peripheral rent" (Fig. 1). In only one case has the rent been in the central portion of the fibro-cartilage, dividing it into two crescents, the outer one still retaining its old attachment to the capsule, the inner one torn off from the outer down the middle and only attached at its ends to the bone (Fig. 2). Let us call this

FIG. 3.

"Partial anterior peripheral." The serrated line indicates the rent. *a, b, c, d*, as in Fig. 1. *e*. Jagged line indicates the position of rent in "partial peripheral anterior separation."

the "central splitting." Again, this rent has not in all cases involved the whole length of the meniscus—in other words, it has been partial or complete in some. The most usual form of partial separation has been that in which the anterior part of the meniscus in front of the internal lateral ligament has been torn off at its periphery from the capsule (Fig. 3).

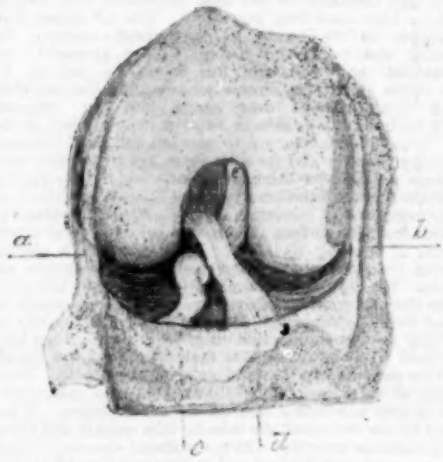
FIG. 4.



"Partial posterior peripheral." The serrated line indicates the rent. *a, b, c, d*, as in Fig. 1. *e*. Jagged line indicates "partial peripheral posterior separation."

Let us call this the "partial anterior rent." Again, in only two cases was the rent limited to that part of the circumference lying *under and behind* the internal lateral ligament—"partial posterior" (Fig. 4). In the six cases where the peripheral rent was almost or actually complete the whole meniscus was found to have slipped inwards over the internal condyle of the femur and to be lying curled up in a loop against the crucial ligaments, only held by its attached ends.—"complete internal dislocation." This condition is well seen in the only specimen of the lesion which our museum possesses (Fig. 5). It happens to be an external cartilage, but the displacement is the same, as these cases have shown, for the internal. In those cases in which there has been only partial separation little or no displacement has been found when the joint has been opened and the rent discovered, although from the history and symptoms such a dislocation must have been present more or less on one or many occasions. In the only instance in which the cartilage was found split along its centre (Fig. 2) the rent was "complete," and the crescent of tissue torn off from the main part was seen curled up in a loop against the crucial ligaments attached still by both its ends just as in the "complete internal" form (Fig. 5).

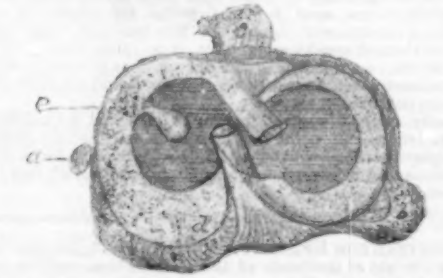
FIG. 5.



"Complete internal dislocation." *a*. External lateral ligament. *b*. Internal lateral ligament. *c*. External semilunar cartilage. *d*. Anterior crucial ligament. *e*. Posterior crucial ligament. (University College Museum.)

One other variety of internal derangement of the knee-joint is included in my list of operations and is similar to one I saw operated on many years ago and is illustrated by a specimen in our museum. It is not a true dislocation of the semilunar cartilage but caused symptoms almost identical with those of the latter lesion and may be rightly included under the term, "internal derangement of the

FIG. 6.



"Polypoid tag." *a, b, c, d*, as in Fig. 1. *e*, Small polypoid fibro-cartilage growing from free border of meniscus.

knee-joint." In this patient, sent to me from Portugal for operation with the usual history and symptoms, I found on opening the joint a tag of fibrous tissue like a smooth polyp growing out from the free margin of the internal semilunar cartilage and projecting between the bones where it was occasionally caught, giving rise to all the usual troubles

(Fig. 6). It was simply shaved off with a small portion of the free margin of the meniscus and complete relief followed. I have drawn the figure from the specimen now before me.

Taking all these varieties of lesion actually seen it appears possible to form some conception of what takes place in joints affected with these derangements. In the first place, the lesions are preceded by what may be called a general slackness of the capsule of the joint and the attachments to it of the periphery of the semilunar cartilage. The cause of this is not quite apparent. In nearly every one of my own cases the patients were men in the prime of active life and some were really athletes. One young gentleman, about 18 years of age, in whom one knee after the other was thus badly affected in the course of two years, was described by his father as one of the most "loose-jointed" individuals he had known and able for all sorts of acrobatic feats. It appears to me probable that there may be some congenital slackness of the ligamentous mechanism of the joint in many of these cases, the patients being otherwise in the most perfect health; but in other cases the patients have stated that the symptoms indicating more or less displacement were only noticeable when they were out of health and generally anæmic and "slack," and in these instances tonics, rest, and carefully regulated exercise with cold douching of the joint sufficed to correct all the tendency to the condition.

Given such a relaxed condition of the peripheral attachments of the semilunar cartilage it is not very difficult to understand the mechanism of the various lesions described above, especially when one has studied the movements of the meniscus in the several positions of the living joint during an operation which exposes the interior freely. During flexion it is clearly seen that the semilunar cartilage moves as a whole more or less backwards, apparently drawn back by its attachment to the internal lateral ligament, the point of contact between the condyle and the tibia, also shifting backwards during flexion. During extension of the knee the meniscus moves forward again and in extreme extension it can be seen to be pressed outwards against the capsule. All this is plainly visible, for instance, when a peripheral and complete detachment of the meniscus has taken place followed by complete dislocation inwards against the crucial ligaments (Fig. 5). Under such conditions, if the joint is flexed and the cartilage is drawn out with a hook into its normal position, it can be retained there quite easily by extending the limb. But if the latter is now flexed a little the loose semilunar is seen to recede more and more until with a sudden slip it slides over the convex surface of the condyle and curls up round the crucial ligaments. Eversion of the tibia at the same moment appears to favour the displacement, probably by rendering the gap between the bones wider for the moment, so that the meniscus can sink deeper between them. Such a movement backwards in the healthy joint is probably the first step in the process of displacement. The next is the catching of the free edge of the "half moon" between the femur and the tibia during extension. Whether this is favoured by any roughening of either the surface of the condyle or semilunar cartilage it is impossible to say, but it appears at least probable that in certain cases—e.g., rheumatism—either or both of these surfaces may be altered and lose their perfect gloss. If this is so the catching of the free edge would be much more likely to occur. But when once caught during extension if the latter movement be brisk something must give way, for the leverage is enormous. The anterior attachment of the cartilage to the capsule moves forwards and the internal lateral ligament is rendered taut as extension is completed, while the meniscus is prevented from following them by catching between the bones. Thus a rent in one or other of the varieties mentioned is produced.

It is much more difficult to explain the "partial peripheral *posterior*" rents. But the mode of occurrence of the lesion in one of my last cases (Fig. 4) perhaps supplies the clue to the *modus operandi*. In this instance the patient, a healthy and intelligent gentleman and an athlete, about 25 years of age, stated positively that the dislocation first occurred when he was demonstrating to some friends how quickly he could rise on one limb from a position of extreme flexion unaided by the other limb. He was, in fact, resting on one leg and practically sitting on his heel. When he then attempted to spring into the upright position he felt something give way in the knee and the characteristic symptoms made their appearance. In this case it is probable that the posterior segment of the meniscus was forced between the point of contact of the femur and tibia when the latter was at its maximum of shifting backwards and when the anterior segment was furthest from the anterior border of the tibia. When now he made a sudden spring into the vertical position the extensors and internal lateral ligament would drag the meniscus forward anteriorly and externally while the posterior segment would be drawn backwards by its attachment to the posterior part of the capsule. If the free edge of the posterior segment was now caught between the condyle and the tibia and was prevented from following the capsular structures backwards, great strain would result and the rent as seen (Fig. 4) would take place. Such a rent in most of these cases—to judge by the clinical history—is not at first "complete"; and it is in the incomplete cases that rest and support are productive of cure. But very often successive drags tear the rent longer and longer until finally the meniscus is only attached at its ends. Then some day in extreme flexion it slips over the convex surface of the condyle of the femur and shrinks up round the crucial ligaments (Fig. 5). Whether under such conditions it can ever return to its normal position and become fixed there is more than doubtful. Personally, from what I have seen I do not think it to be possible. In the six or seven cases when on opening the knee-joint I have found this condition fully developed the meniscus was so shrunken and distorted in several that it was with the greatest difficulty that it could be drawn out into its proper position with a sharp hook, and it at once slipped back to the centre of the joint when the slightest flexion was made.

These are the cases where the total removal of the meniscus is perfectly justifiable, though in several cases by careful peripheral stitching I have fixed it in its proper position with excellent and permanent results. There is another form of displacement in which the removal of the loose portion is perfectly justifiable—namely, in that second form (Fig. 2) which I have called "central splitting." Here the meniscus has been divided down its middle so that the inner half is only attached at its ends. It would be very difficult, if not impossible, to stitch the two torn edges here. Moreover, the outer portion fulfils all the needs of a semilunar cartilage and is firmly fixed to the capsule as indicated by the fact that the rent has taken place in the centre and not at the periphery. There would be, therefore, no great object in preserving the inner portion and so it is better to divide its attached ends with scissors and to remove it as I have done in one of my last cases. There is yet again one condition in which removal of the whole semilunar is justifiable and, indeed, called for. This is that form in which the rent, though peripheral, is more or less behind the internal lateral ligament (Fig. 4). Here the difficulty of stitching the torn edge to the capsule without dividing the internal lateral ligament (which is inadmissible) would be insuperable. It is better to complete the rent through the anterior segment and then to cut the whole meniscus away at its anterior and posterior attachments as I did in my last case but one.

To operate on these cases the incision I have always used is one commencing over the inner border of the ligamentum patellæ about half an inch above the articular border of the tibia and carried with a curve downwards and outwards to the anterior edge of the internal lateral ligament. The lowermost edge of the flap so formed should lie about half an inch below the articular border of the tibia. The cut should be firmly made and divide the periosteum at the same time. The flap must now be raised with the periosteum until the edge of the cartilage appears under the attachment of the meniscus, which, if still partially attached, will rise with the flap until its *under* surface is seen. If partially torn anteriorly it can then be stitched to the periosteum with a few silk threads. When the periosteum is now laid back in its place and secured there by silk stitches the meniscus becomes firmly attached to it. The rest of the wound is closed without drainage. If complete peripheral separation has taken place *recently* and the curled-up meniscus can be easily reduced in flexion to its old position with a sharp hook it can be stitched firmly as above, and in those cases in which I have done this there has been no recurrence in spite of very active exercise; but when this complete peripheral separation has taken place long before the operation and the cartilage is shrunken up round the crucials it is better, by snipping its attached ends with scissors, to remove it completely. The same course ought to be pursued in cases of

"central splitting," also in cases where the "partial rent" is behind the internal lateral ligament. Here it is better to complete the rent and to take away the whole meniscus.

It goes without saying that all these measures must be carried out without any manipulation of the parts involved with the fingers. Nothing should touch the open surfaces except carefully sterilised metal instruments and sterile gauze. Antiseptics must be avoided. They are calculated only to increase the irritation in the joint. Moreover, the wound should not be kept open one moment longer than is absolutely necessary. An ice bag over the dressings for the first week or so is pleasant to the patient and probably keeps down the effusion which usually follows to some slight extent the traumatic insult to the structures of the articulation. Treated on these lines there should be but little risk in these operations and all should heal well without trouble as these have done.

List of Cases of Internal Derangement of the Knee-joint.

No.	Sex.	Age.	Year.	Nature of derangement.
1	M.	24 years.	1895	Partial anterior.
2	M.	44 ,,	1896	Complete internal dislocation.
3	M.	26 ,,	1896	,, ,, ,,
4	M.	38 ,,	1896	,, ,, ,,
5	M.	40 ,,	1896	Partial posterior.
6	M.	21 ,,	1897	Complete internal dislocation.
7	M.	26 ,,	—	Partial anterior.
8	M.	29 ,,	1898	Polypoid tag.
9	M.	40 ,,	1898	Partial anterior.
10	M.	34 ,,	1898	Complete internal dislocation.
11	M.	18 ,,	1899	Partial anterior.
12	M.	19 ,,	1900	Central complete.
13	M.	16 ,,	1901	,, ,,
14	M.	28 ,,	1901	Partial posterior.
15	M.	21 ,,	—	Complete internal dislocation.
16	M.	22 ,,	1901	—
17	M.	32 ,,	1901	—

These 17 cases are made up as follows: Complete internal dislocation, six (Fig. 5); partial anterior peripheral, 5 (Fig. 3); partial posterior peripheral, 3 (Fig. 4); central complete, 2 (Fig. 2); and polypoid tag, 1 (Fig. 6); total 17.

ON THE ETIOLOGY AND PATHOLOGY OF SCURVY.

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THE disease clinically designated as "scurvy"—that is, a collection of symptoms known to clinicians as scurvy or the scorbutic condition—has during the last few years received renewed attention from pathologists with the view of determining what is the pathological condition which underlies these symptoms and what is the cause of this pathological condition. Three hypotheses have recently been put forward by different observers. These hypotheses are founded for the most part on direct observations on cases of scurvy and on the result of experiments on animals. They may be briefly summarised as follows.

1. Professor A. E. Wright[1] of Netley in 1895 put forward the theory that the scorbutic condition was probably a condition of acid intoxication—that is, a condition in which there was a marked diminution in the normal alkalinity of the blood plasma, the result of a dietary of food-stuffs which contained a large excess of mineral acids over bases—a dietary, in fact, of meats, especially salted meat, and cereals, to the exclusion of green vegetables, tubers, and potatoes. This condition of acid intoxication he compared to the acid intoxication which can be experimentally produced in herbivora by the ingestion of a surplus of mineral acids. It is unnecessary for my purpose to follow Professor Wright through the close reasoning which runs through this communication. At a later date he was able to test the correctness of the inferences which he had previously set forth. Thus, in THE LANCET[2] he recently recorded the results of the estimation of the alkalinity of the blood serum in the case of seven soldiers who had been invalided from South Africa to Netley. These patients all presented the classical symptoms of scurvy, in most instances in a marked degree. In every case the alkalinity of the blood serum was found to be strikingly reduced below the normal. Not only was this the case, but a very striking amelioration of the condition followed upon the exhibition of lactate of soda and other similar substances. It would appear, therefore, from these facts, that Professor Wright had established beyond a doubt that scorbutic symptoms are, in some instances at least, associated with a condition of acid intoxication which can easily be rectified by the administration of salts of the vegetable acids. If this hypothesis could be supported by observations in India similar to his own the prophylaxis and treatment of this condition would become a simple matter. Scurvy, which is so commonly seen in Indian jails and which is such a frequent cause of invaliding during active service on the frontier of India, would soon become a thing of the past.

2. Lieutenant W. Glen Liston, I.M.S.,[3] investigated in the jail at Akola, Berar, four cases which showed marked scorbutic symptoms. In the fæces of all these patients he found the ova of ankylostoma duodenale in large numbers. He therefore put forward the opinion that the symptoms noticed were in all probability dependent on the presence in large numbers of this intestinal parasite. It would further appear from Major Reilly's remarks[4] on Lieutenant Liston's observations that several cases of scurvy which were almost moribund were ultimately cured as soon as the parasites had been expelled from the intestine by the exhibition of thymol. Lieutenant Liston's description of the symptoms in these cases does not, to my mind, convey the idea that he was dealing with true cases of scurvy. A profound anæmia seems to have been the predominant condition. Further, it is apparent, in view of the great prevalence of this intestinal parasite in healthy natives of India, that these observations would have to be greatly extended before any definite conclusion could be arrived at.

3. Finally, Mr. F. G. Jackson and Dr. Vaughan Harley[5] have come to the conclusion that neither lime-juice nor fresh vegetables prevent scurvy or cure it. They consider that scurvy is a condition of ptomaine poisoning produced through the eating of tainted animal food. This opinion, which was first propounded by Professor Torup of Christiania, is advocated by Mr. Jackson and Dr. Harley as being in consonance both with the observations of sojourners in the Arctic and Antarctic regions and with the results of certain experiments on monkeys which were made by themselves. This last theory may at once be dismissed from consideration in connexion with the explanation of the scorbutic symptoms so commonly seen amongst the prisoners in Indian jails and amongst the sepoys and followers in native regiments when employed on field service on the frontier of India.

The symptoms of the disease as seen in these bodies of men are the ordinary and classical symptoms known as scurvy. There can therefore be no doubt as to the identity, from a clinical standpoint at least, of the ordinary scurvy and of scurvy as seen and described by numerous medical officers of the army of India. Now these men are for the most part cereal eaters. In jails the meat ration, as we shall see later, consists of four ounces of fresh meat without bone. This ration, as a rule, is given only once a week. Further, on field service the native army is not supplied with any tinned meat. The only meat ration which is issued is, as circumstances permit, the flesh of goats or sheep. Even this ration is, from caste prejudice, not taken advantage of by many men. From personal experience, moreover, I can say that many of those men who suffered from severe scurvy during the Waziristan expedition of 1894–95 never ate meat of any kind, confining themselves entirely to a cereal and vegetable dietary. Such, also, I know to be the common experience of other medical officers. It is apparent, therefore, that in the light of these facts the ptomaine theory of

[1] Army Medical Report for the year 1895.

[2] THE LANCET, August 25th, 1900, p. 565.
[3] Indian Medical Gazette, October, 1900, p. 330.
[4] Ibid., July, 1900, p. 268.
[5] THE LANCET, April 28th, 1900, p. 1134.

the etiology of scurvy will not explain the causation of this disease as it is commonly seen in India.

The observations in 11 cases of scurvy which I have now to put on record were made solely with the object of ascertaining if more evidence could be obtained in support of either of the hypotheses mentioned above (No. 1 and No. 2)—viz., the hypotheses put forward by Professor Wright and Lieutenant Liston respectively. In each case the alkalinity of the blood serum was estimated and the fæces were examined carefully for ova of dochmius duodenalis.

The method which was used to measure the alkalinity of the blood serum was the method which has been devised and described by Professor Wright.[6] I may mention in passing that I had the advantage of having been taught the technique of this method by Professor Wright himself and of having made many observations on animals and on man under his direct supervision. There can therefore be no doubt on the question of the comparability of my results from the point of view of the technique employed with those of Professor Wright. Dilutions of deci-normal sulphuric acid in multiples of 10, or when necessary of five, were employed in titrating the serum. I have to thank Major Collis-Barrie, I.M.S., chemical examiner to the Government of Bombay, for supplying me with the standard deci-normal acid solution. The dilutions of this were made with normal saline solution. The indicator employed was, as recommended by Professor Wright, a sensitive red litmus paper, for which also I am indebted to Major Collis-Barrie.

As a preliminary step I estimated, as controls, the alkalinity of several samples of blood serum taken from healthy natives, servants in this laboratory. I found that among these natives the maximum value of the alkalinity of the serum was $\frac{N}{25}$—that is, that the blood serum was exactly neutralised by an equal quantity of a 25-fold dilution of normal sulphuric acid. The average alkalinity was found to be equivalent to $\frac{N}{30}$ sulphuric acid. This result would appear to show that the alkalinity of the blood of natives of India is slightly greater than that of the blood of Europeans, for Professor Wright[6] has stated that on the average he found the normal alkalinity to be $\frac{N}{35}$. In conducting the examination of the fæces, undertaken to test the theory of Lieutenant Liston above referred to, slides were prepared either from the fresh fæces, when these were available, or from a sample which had been kept in a weak solution of carbolic acid. From three to six specimens were carefully examined in every case for the ova of ankylostoma.

I have first to detail the result of the examination conducted in the case of a series of five cases of scurvy occurring in prisoners in Thana Jail, an institution situated a few miles out of Bombay. I am indebted to Dr. Moos, the medical officer of this jail, for his kindness in bringing these cases under my notice and also in affording me every opportunity of investigating them.

CASE 1.—The patient was a Hindu of the Koli caste, aged 35 years, who had been admitted into the jail on Dec. 7th, 1899. The patient had enjoyed good health until just before his admission into the hospital. He was received into the hospital on Sept. 5th, 1900, complaining of pains in the legs and presenting symptoms which warranted a diagnosis of scurvy. He came under my observation on the 25th, when his condition was as follows. The gums were very much swollen; they were spongy and bled easily on being touched; the teeth were very loose. There was slight œdema of the face. Both legs below the knees were swollen, hard, and brawny in appearance; they were very painful on the slightest pressure. This condition of the legs was due to subcutaneous and intermuscular extravasations, especially in the calves, but also affecting the anterior tibial muscles. There was no skin eruption of any kind. Diarrhœa had never been present nor had any external hæmorrhages occurred. The alkalinity of the blood was found to be $\frac{N}{30}$, and the blood coagulation time was about four minutes. Since admission to the hospital the patient had been treated with lime-juice and citrate of iron and quinine along with a special diet. As all the five cases which I had under my observation in the jail at this time received this diet I shall mention it more in detail later. No improvement had taken place under this treatment. The further progress of this case was interesting. On the 27th the lime-juice and citrate of iron and quinine were stopped and lactate of soda (60 grains daily) was substituted. The special diet was continued. In spite of this treatment the patient got gradually worse and died on Oct. 11th. In my absence Dr. Moos made a necropsy. He reported that he found the usual intermuscular extravasations and serous effusions which are met with in fatal cases of scurvy.

CASE 2.—The patient was a Hindu of the Koli caste, aged 35 years, who had been imprisoned on Jan. 3rd, 1900. The patient was admitted into hospital on Sept. 5th presenting the usual symptoms of scurvy. He came under my direct observation on the 25th, when his condition was as follows. The gums were markedly swollen and spongy and bled readily. The teeth were very loose. There was a large unhealthy-looking ulcer over the right inner malleolus. There was considerable œdema of both feet and legs. The calves were swollen, hard, hot to the touch, and brawny in appearance. There were no subcutaneous ecchymoses. The alkalinity of the blood was found to be $\frac{N}{30}$ and the blood coagulation time was four and a quarter minutes. Since admission to hospital there had been neither diarrhœa nor external bleeding. He had been treated with lime-juice and citrate of iron and quinine, as well as receiving the extra diet to be mentioned hereafter. There had been no improvement in his condition under this treatment. On the 27th the lime-juice and citrate of iron and quinine were stopped. Instead of these medicines lactate of soda (60 grains daily) was administered, the special diet being at the same time continued. On Oct. 6th the fæces were examined for ova of dochmius duodenalis. The results of this examination were negative. On the 12th Dr. Moos reported that there had been no improvement since the new treatment was begun. After this date, however, the patient began to improve slightly and was ultimately discharged cured on Nov. 30th.

CASE 3.—The patient was a Hindu of the Koli caste, aged 28 years, who had been imprisoned on June 6th, 1900. He was admitted into hospital on Sept. 17th, 1900, presenting the usual symptoms of scurvy. He had only recently recovered from an attack of cholera. He came under my observation on the 25th, when his condition was as follows. The gums were spongy, although not so markedly spongy as in Case 1 and Case 2. The right leg below the knee was much swollen, hard, and painful, with marked œdema of the foot. The left leg was normal. The alkalinity of the blood was found to be $\frac{N}{35}$. Since admission to hospital there had been no diarrhœa or external hæmorrhage. He had been treated with citrate of iron and quinine as well as the extra diet, the same as in Case 1 and Case 2. He had had no lime-juice. There had been no improvement in his condition since admission. On the 27th the citrate of iron and quinine were stopped and lactate of soda (20-grain doses three times a day) was substituted. The extra diet was continued. On Oct. 6th the fæces were examined for ova of ankylostoma duodenale. The examination was negative. On the 12th Dr. Moos wrote to me that there had been no, or only very slight, improvement since the patient had been admitted to the hospital, but after this date he gradually improved and was discharged practically well on Nov. 12th.

CASE 4.—The patient was a Hindu of the Agree caste, aged 40 years, who had been imprisoned on Sept. 3rd, 1899. He was admitted into hospital on Sept. 18th, 1900, when he showed slight symptoms of scurvy. He came under my observation on the 25th, when his condition was as follows. There was only slight sponginess of the gums; the teeth were all very loose. There was well-marked œdema of the left foot, while the left leg below the knee was swollen, hard, and brawny. Great pain was complained of on the slightest pressure of this leg. The right leg and foot were normal. The alkalinity of the blood was found to be $\frac{N}{30}$. Since his admission to the hospital there had been neither diarrhœa nor any external hæmorrhage. Patient had been treated with citrate of iron and quinine as well as the special diet. No lime-juice had been given. On this treatment there had been very slight or no improvement. On the 27th the citrate of iron and quinine

[6] THE LANCET, Sept. 18th, 1897, p. 719.

were stopped and the administration of lactate of soda (60 grains per diem) was begun. The extra diet was continued. On Oct. 6th the fæces were examined carefully for ova of ankylostoma duodenale. The result of this examination was negative. On the 12th Dr. Moos reported that there had been no further improvement since the lactate of soda was begun. A month later (on Nov. 12th) the patient was discharged cured.

CASE 5.—The patient was a Hindu of the Lincayeb caste, aged 45 years, who had been imprisoned on Oct. 23rd, 1899. He was admitted into hospital on Sept. 5th, 1900, showing some of the usual symptoms of scurvy. He came under my observation on the 25th when his condition was as follows. There was only slight sponginess of the gums. Both legs below the knee were much swollen, hard, brawny, and extremely painful on the slightest pressure. There was well-marked œdema of both feet. The alkalinity of the blood was estimated to be $\frac{N}{30}$. Since admission to the hospital the patient's condition had remained *in statu quo*. During this time he had not suffered from diarrhœa nor had there been any external hæmorrhage. No lime-juice had been given. He had been treated with citrate of iron and quinine and was also given the special diet. On the 27th lactate of soda (60 grains daily) was substituted for the citrate of iron and quinine. The special diet was continued. On Oct. 6th an examination of the fæces was made for the ova of dochmius duodenalis. No ova were found. On the 12th Dr. Moos reported that there had been no improvement in the symptoms since the patient's admission to the hospital. On Nov. 14th the patient was discharged to light work.

Before proceeding to record the remaining six cases, who were natives from the bazaar under treatment in a general hospital in Bombay, it would be well to consider further the well-marked series of cases detailed above and to draw attention to a few points which bear on the questions under discussion.

In the first place, then, as regards the etiology of these cases it is interesting and important to be able to put on record the dietary which these patients had been fed upon before admission to hospital, for inasmuch as all these men had been resident in the jail for periods varying from three to twelve and a half months before symptoms of scurvy developed it is evident that any error or deficiency in diet before their incarceration can hardly be brought forward as a factor in the etiology of the scorbutic symptoms. The scale of this diet may be tabulated as follows:—

TABLE I.—*Showing the Scale of Ordinary Diet of Prisoners.*

Articles.	Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
	Oz.	Oz.	Oz.	Oz.	Oz.	Oz.	Oz.
Wheat flour or rice ...	12	*Nil.*	*Nil.*	12	*Nil.*	*Nil.*	*Nil.*
Jowari, bajari, or nagli flour	12	24	24	12	24	24	24
Dhall toor*	*Nil.*	5	5	5	5	5	5
Mutton (without bone)	4	*Nil.*	*Nil.*	*Nil.*	*Nil.*	*Nil.*	*Nil.*
Vegetables†	8	8	8	8	8	8	8
	Dr.	Dr.	Dr.	Dr.	Dr.	Dr.	Dr.
Onions	4	4	4	4	4	4	4
Condiments	4	4	4	4	4	4	4
Salt	8	8	8	8	8	8	8
Oil	Six drachms daily between April 1st and Sept. 30th; 10 drachms daily between Oct. 1st and March 31st.						
Tamarinds (without husk and seeds)... ...	Four drachms daily between April 1st and Sept. 30th; two drachms daily between Oct. 1st and March 31st.						

* A pulse similar to the lentil.
† Vegetables consist of potato, bringal, bhagee, and sweet gourds.

Considered in the light of Professor Wright's hypothesis it is manifest that the ordinary jail diet cannot be said to be deficient in fresh vegetables. No less than half a pound of these is given daily. It is therefore unlikely that the acid food-stuffs (viz., the cereals and meat) here preponderated over the alkaline food-stuffs (viz., the fresh vegetables, onions, and dhall) in such a manner as to bring about a condition of acid intoxication. Now the jail diet which has been tabulated above is practically the same diet which is in use by the great majority of the natives of India living in their natural conditions, and it cannot be said that scurvy is at all common among them. Further, when we consider that out of an average population of 1095 prisoners these five patients, along with one other who had just died before they came under my observation, were the only cases which had occurred in this jail for some time, and when we consider that all prisoners are fed on practically the same diet—the slight differences in the various scales of diet depending upon the work which each man has to perform—it would seem useless to look for a cause of this limited outbreak of scurvy to any deficiency in dietary. Had such a general cause as deficiency or error in diet been operative one would have expected a much greater number of cases to have taken place. Further, the diet is a fixed one and under control and careful inspection. It is, moreover, just sufficient for the work done and does not satisfy hunger so thoroughly as to lead one to think, notwithstanding the known artfulness of the Indian prisoner in malingering, that it is likely that a prisoner would willingly pass over any item in the bill of fare for the purpose of producing scorbutic symptoms. It is also doubtful as to whether or not he would have sufficient intelligence or scientific knowledge to enable him successfully to malinger in this way. We may therefore take it as almost certain that there is no waste and that the regulation diet is all consumed. These facts relating to the dietary therefore lend no support to Professor Wright's hypothesis that scurvy is always associated with a diet in which the alkaline food-stuffs are deficient.

Again, the ptomaine theory of the etiology of scurvy put forward by Mr. Jackson and Dr. Harley receives no support from a consideration of the diet-table detailed above, for a glance will show that the patients had only been receiving four ounces of fresh mutton once a week. Further, as in Indian jails meat is eaten the same day as that on which the animal is killed and is subjected to careful inspection, there can be no question as to the development of bacterial poison in the meat before consumption.

In harmony with the inferences based on the consideration of the dietary are the results of the blood examination. We have seen that no diminution in the alkalinity of the blood serum was found to be present in any one of the cases which are detailed above. These cases all presented well-marked scorbutic symptoms and one of them was so severe that death took place a short time after it came under observation. This result, then, would definitely point to the conclusion that these cases of scurvy were, at any rate, not cases of acid intoxication. In consonance with the conclusion are the effects of treatment. We have noted above that the course of the disease was not in any instance noticeably affected by the treatment. This treatment consisted in the earlier period in an extra special diet, supplemented in two of the cases with a fairly large quantity of lime-juice. This extra diet consisted of the ordinary hospital diet given to non-working prisoners and, in addition, an extra allowance of milk, sugar, fresh mutton, potato, and ghee. The quantities of the various articles of the total diet are tabulated as follows:—

TABLE II.—*Showing the Scale of Diet of Prisoners suffering from Scurvy.*

Articles.	Quantity.	How often.
Rice and wheat (jowari, bajari, or nagli)	18 ounces.	Daily.
Dhall toor	5 ,,	,,
Milk	1 pound.	,,
Sugar...	1 ounce.	,,
Mutton (fresh)	8 ounces.	,,
Potatoes	4 ,,	,,
Vegetables	8 ,,	,,
Onions	4 drachms.	,,
Ghee	1 ounce.	,,
Oil	4 to 6 drachms.	,,
Salt	8 drachms.	,,
Tamarinds (without husks or seeds)	2 to 4 drachms	,,
Condiments	4 drachms.	,,

No improvement of the condition had followed this treatment. On the first day on which I saw the patients I asked Dr. Moos to continue this diet, but to substitute lactate of soda for the lime-juice and any other medicine they were taking. This request was made before the result of the blood serum examination was known, but not a grain of this drug had been given before the blood had been collected. Professor Wright[1] has recorded that in the cases of scurvy which he observed (these were cases which were associated with a marked diminution in the alkalinity of the blood) marked and rapid improvement followed immediately on the administration of lactate of soda and other similar substances, some of the patients, in fact, being rescued from the jaws of death.

We have seen that in my cases, which, as I have shown, were not associated with any diminution in the alkalinity of the blood, lactate of soda, although given in large doses—viz., 60 grains daily—brought about no improvement whatever in the clinical aspect of the cases. One case, indeed, ended fatally 17 days after the exhibition of this drug was begun. The facts, therefore, which go to show that these cases, although presenting all the symptoms of the scorbutic condition, were not cases of acid intoxication due to a dietary deficient in alkaline food-stuffs, may be briefly summarised as follows.

1. There was no marked deficiency in the alkaline food-stuffs of the dietary before the onset of the symptoms. The diet was common to about 1095 prisoners, and of these only six men developed scorbutic symptoms.

2. There was no diminution of the alkalinity of the blood serum observed when the symptoms were well marked.

3. There was no improvement in the symptoms either as a result of the giving of a diet consisting of abundant alkaline food-stuffs or on the administration of large doses of lactate of soda.

The remaining six cases which I have to record bear out the same conclusions. These cases were all patients in the Jamsetjee Jeejeebhoy Hospital, Bombay. They had been admitted from the streets suffering from the symptoms detailed below. It was found impossible in any of these cases to get a reliable history of the quantity or of the exact nature of the diet on which the patients had been living before admission into the hospital. I am greatly indebted to the several physicians under whose care these cases were being treated for affording me every facility for examining them and for furnishing me with the clinical notes of the cases. The cases are given here in chronological order.

CASE 6.—This case was under the care of Major L. F. Childe, I.M.S., professor of pathology, Grant Medical College. The patient was a Hindu, aged 30 years. He was admitted into the hospital on Nov. 14th, 1900, and he came under my observation two days later. During this interval he had had no treatment of any kind. His condition on the 16th was as follows. The teeth were very loose; the gums were spongy and bleeding and were separated from the teeth. There was considerable œdema of the right foot. The right leg from the knee to the ankle was much swollen, hard, and very painful on pressure. There was no purpuric eruption; diarrhœa was present, the stools numbering three or four per diem; there had been no hæmorrhage from the bowel. The conjunctivæ were pale and indicated a certain amount of anæmia. The red blood cells numbered 4,000,000 per cubic millimetre. The blood coagulation time was four and three quarter minutes. The alkalinity of the blood was $\frac{N}{30}$. An examination of the fæces was made for ova. In all three slides were examined. The following ova were found: (1) one ovum of trichocephalus dispar; (2) one ovum of ascaris lumbricoides; and (3) one ovum of dochmius duodenalis. The treatment adopted by Major Childe was as follows. The usual diet of hospital patients of Hindu caste was given. This consisted principally of rice and vegetables. As well some alkaline mixtures consisting chiefly of sulphate of magnesium and citrate of potash were administered. The patient was discharged cured on Dec. 27th.

CASE 7.—This case was under the care of Dr. N. F. Surveyor. The patient was a Hindu woman, a widow, aged 24 years. She was admitted into the hospital on Oct. 29th, 1900, complaining of swelling of the left leg and pain in the right knee-joint. She was seen by me on Nov. 27th, when her condition was as follows. She was very thin, although not markedly anæmic. The red blood cells numbered 3,600,000 per cubic millimetre. The gums were spongy, but were neither ulcerated nor bleeding. Diarrhœa was present. The stools contained mucus and blood. The diarrhœa, however, became less after admission. On the front of the right tibia there was a small subperiosteal swelling which was very painful on pressure. The calf of the left leg was swollen, hard, and brawny; it was very tender on pressure. There was considerable œdema of this foot. The anterior tibial region was also swollen, hard, and tender, although this condition was not so marked in this region as it was in the calf. The blood coagulation time was about one and a quarter minutes. The alkalinity of the blood was $\frac{N}{30}$. On Nov. 28th, six slides of fæces were examined for ova, but with the exception of one ovum of trichocephalus dispar, none were found. The future history of this case as supplied to me by Dr. Surveyor was as follows. On Dec. 2nd the patient began to get very feeble. From the 3rd to the 8th the temperature showed a marked evening rise each day. Diarrhœa became very troublesome, the stools containing much blood and mucus. On the 8th symptoms pointing to a cerebral hæmorrhage made their appearance. The patient died on that day. Unfortunately a post-mortem examination was not obtained. During her residence in hospital treatment had been directed to controlling the diarrhœa and as usual the routine treatment for scurvy had been given. She had taken also at differe n periods citrate of potash and digitalis, quinine, iodide of potash, and chlorate of potash as a mouth wash.

CASE 8.—This case also was under the care of Dr. Surveyor. The patient was a Hindu woman, aged 25 years. She was admitted into the hospital on Nov. 19th, 1900. She came under my observation on the 27th, when her condition was as follows. The gums were markedly swollen and spongy, and much ulcerated, and they bled readily on being touched. After admission the bleeding from the gums was very marked. It was controlled, however, by the internal administration of chloride of calcium. The patient was very anæmic, the red blood cells numbering 2,200,000 per cubic millimetre. The right leg below the knee was markedly swollen; it was hard, brawny, hot, and very painful to the touch; there was considerable œdema of this foot. On the left leg there was some swelling around the tendo Achillis; this swelling was also tender; there was also slight swelling of the left knee. On the posterior surface of the right ulna there was a painful subperiosteal swelling about two inches long. This had only appeared the night before. There had been no diarrhœa. She had been having lime-juice since admission, but no alkalies. The blood coagulation time was two minutes and the alkalinity of the blood was $\frac{N}{25}$. Four slides of fæces were examined, but no ova of any description were found. On Dec. 11th the patient was found to have greatly improved. Since the last note, after a diminution of the calcium chloride to 15 grains per diem, there had been severe bleeding from the gums. This was easily controlled by increasing the calcium chloride again. The gums and swelling of the leg were much better than they were a fortnight before. With the exception of the calcium chloride there had been no medicinal treatment. The patient was discharged from hospital on the 26th. There was then slight swelling of the right leg and ankle-joint. The gums were almost normal.

CASE 9.—This case also was under the care of Dr. Surveyor. It was quite a mild case. The patient was a Hindu woman, aged 25 years. She was admitted into hospital on Dec. 9th, 1900. She said that she had been ill for two months before this date. She came under my observation on the 11th when she complained of pain in most of the joints, but no effusion into any joint was observable. The gums were spongy, swollen, and bled easily on pressure. There had been no spontaneous bleeding from the gums. There were no extravasations, either subcutaneous or intermuscular, in either leg. There was no œdema or purpura. The bowels were constipated. The temperature was normal. With the exception, therefore, of the condition of the gums there were no symptoms of scurvy. The blood coagulation time was four minutes. The red blood cells numbered 5,100,000 per cubic millimetre. The alkalinity of the blood was found to be $\frac{N}{25}$.

CASE 10.—This case was under the care of Major R. W. S. Lyons, I.M.S., professor of medicine, Grant Medical

[1] THE LANCET, August 25th, 1900, p. 565.

College, by whom it was clinically diagnosed as "undoubtedly a case of scurvy." The patient was a Hindu, aged 25 years. He was admitted into the hospital on Jan. 24th, 1901, complaining of general debility accompanied by swelling of the left foot and leg and bleeding from the gums. He was a man from the bazaar and any account of his dietary was in consequence not trustworthy. He said, however, that he regularly ate vegetables although his staple diet was bread made of bajari flour and a mess of pulse. He had been ill with the symptoms he then complained of for about three weeks before admission to the hospital. He came under my observation on the 26th—viz., two days after admission. His condition then was as follows. He was markedly breathless on exertion. The face was bloated and sallow. The gums were much swollen, very spongy, red, and detached from the teeth, projecting beyond them in loose bluish-red masses which were very painful and bled on the slightest touch. The detachment from the teeth was best marked along the inner aspect of the gums. The breath was very fœtid. There was considerable œdema of the left leg and foot and also of the lower third of the thigh. Associated with this there were tense, brawny, indurated swellings of the muscles of the calf, in front of the tibia, and in the popliteal space. There was no diarrhœa or purpuric eruption. The blood coagulation time was found to be two and a half minutes. The red cells numbered 4,000,000 per cubic millimetre. The alkalinity of the blood serum was $\frac{N}{30}$. The patient was given the ordinary Hindu diet of rice and vegetables. In addition he was given both fresh limes and lime-juice, along with a little quinine. He was discharged on March 2nd. On that date it was noted that the swelling of the legs was much less and that there was still slight puffiness below the left patella. The gums were normal.

CASE 11.—This case also was under the care of Major Lyons. The patient was a Hindu, aged 35 years. He was admitted into the hospital on Feb. 22nd, 1901, complaining of painful swelling of both knee-joints and of swelling and bleeding of the gums. He said that he had been ill for about three weeks. He came under my observation on the 24th, when he was found to be thin and anæmic. His face was swollen, with a sallow and bloated appearance. The gums were swollen, spongy, painful, and markedly detached from the teeth, and they bled readily on being touched. There were several small petechiæ of a brownish colour over the thighs. These were not raised above the surface of the skin. Both knee-joints were swollen and painful, the pain extending up the thighs and into the loins. There was no œdema of the feet and legs, nor were there any extravasations between the muscles. There was a small, painful, subperiosteal swelling over the anterior surface of the upper third of the left tibia. The bowels were constipated. There had been no external bleeding since the onset of the illness. The blood coagulation time was found to be three and three-quarter minutes, while the alkalinity of the blood serum was estimated as $\frac{N}{30}$. The treatment employed in this case was the same as was used in Case 10. The patient was discharged from hospital on April 23rd when it was observed that the gums were healthy in appearance and that the pains in the joints had disappeared. There was still slight numbness present in the feet when attempts at walking were made.

This, then, completes the record of the cases of scurvy which have come under my direct observation. The whole of the facts brought forward go to show that the condition present in these cases was not a condition of acid intoxication. In view of Professor Wright's observations the only conclusion, therefore, which I can come to is that scorbutic symptoms, although associated in some cases—viz., in Professor Wright's cases—with a condition of acid intoxication, in other cases develop quite independently of this condition. There would seem, in fact, more than one etiological factor and pathological condition underlying the symptoms which are clinically known as scurvy.

In conclusion, it is only necessary to point out that my observations, both of the series of cases in the Thana Jail and of the series in the Jamsetjee Jeejeebhoy Hospital, lend no support to the theory advanced by Lieutenant Liston—viz., that scurvy symptoms may merely be an expression of ankylostomiasis.

ABDOMINAL PAN-HYSTERECTOMY FOR CANCER OF THE UTERUS; WITH NOTES OF TWO CASES.

BY ARTHUR H. N. LEWERS, M.D., F.R.C.P. LOND.,
OBSTETRIC PHYSICIAN TO THE LONDON HOSPITAL.

IN cases of cancer of the uterus which come under observation at a time when operative treatment of a radical nature is indicated, there can be no doubt that, for the large majority, the vaginal route is the most suitable for the removal of the uterus. As regards cancer of the cervix almost all the advantages appear to be on the side of vaginal hysterectomy. Thus in the latter operation the exact position and extent of the growth are clearly visible, and the incisions in the vaginal mucous membrane can be made as far as possible from the edge of the growth. Another advantage, which I myself believe to be of some importance, is that the cut edges of the vaginal mucous membrane and the adjacent submucous connective tissue can, in vaginal hysterectomy, be freely seared with the cautery. Apart from some coincident pathological condition—such as fibroids—the body of the uterus is not enlarged in cancer of the cervix, so that in vaginal hysterectomy there is usually no difficulty in removing the body of the uterus on account of its size. Again, there is, as a rule, less general disturbance after vaginal hysterectomy—less tendency to vomiting, distension, rapid pulse, and less pain—than in operations involving opening the abdomen in the usual position. In a purely abdominal pan-hysterectomy for cancer of the cervix the vagina has, of course, to be opened into from above, and the incision may or may not clear the malignant growth. Some portion of it is almost certain to be left behind, and the operation thereby rendered useless. It is true that this objection may be met by performing a combined operation, partly from below, freeing the cervix as in the first stage of a vaginal hysterectomy, and then completing the operation from above. This procedure will, I think, be generally admitted to be at least inconvenient, owing to the loss of time in altering the position of the patient, and having again to go through the processes for disinfecting the hands prior to opening the abdomen. At least, this has seemed so to me in the few cases, some of them in operations for uterine fibroids, in which I adopted it. Again, in abdominal hysterectomy it is far easier to remove the upper portion of the broad ligaments with the tubes and ovaries than when the operation is performed from below, but in cancer of the cervix this is a matter of little or no importance, since the disease has no tendency to spread in the direction in question, at all events at a stage of the disease when hysterectomy is likely to be performed. Another point is that if ligatures are used to secure the vessels, these can, as a rule, be tied much more securely in abdominal than in vaginal hysterectomy. Still, as a matter of experience, there is rarely any difficulty in sufficiently securing the vessels in the latter operation, either by ligatures or pressure forceps.

There is one more question to be thought of in considering the operation to be chosen in cases of cancer of the cervix. I refer to the infection of the lymphatic glands. If it were the fact, as is maintained by some authorities, that the glands are always, or generally, affected in those cases of cancer of the cervix in which, as far as physical examination can ascertain, the disease has not spread beyond the limits of the uterus, no operation would be satisfactory by which these glands were not removed, and hence abdominal hysterectomy with removal of the glands would have to be the routine operation in all cases of cancer of the uterus, whether of the cervix or of the body, when any radical operation was to be done at all. But it is certainly not the fact that the glands are always affected at a stage of the disease when hysterectomy would be contemplated, nor do I believe it to be anything but a very infrequent occurrence at the stage of the disease in question. The proof of this lies in the after-histories of cases operated on for cancer of the uterus in which the glands have not been removed. Among my own cases I have recorded a series of 40 vaginal hysterectomies for cancer in the Transactions of the Royal Medical and Chirurgical Society of London. The specimens, and sections of them, were shown at the meeting at which

the paper was read, and the malignant nature of each was admitted. Yet among them I was able to point to 12 cases out of 40 in which the after-history of the patient was known and in which the disease had not recurred. Two of these remained well seven years after the operation, one six years, one five and a half years, one five years, one nearly five years, one nearly four years, one more than three years, two nearly three years, one more than two years, and one more than one year. I may instance also several cases from an earlier series of operations for cancer of the cervix in which I merely performed the supra-vaginal amputation of the cervix. Some of the patients were known to be well many years after the operation. In each case the specimen and sections were exhibited at the meeting of the Royal Medical and Chirurgical Society at which the paper recording the cases was read, so that there can be no doubt as to the disease being cancer. It is clear that the after-histories of these cases sufficiently prove that the glands are not by any means always affected in cases of cancer of the uterus at an operable stage. My own belief is that when the glands are affected the disease has usually already advanced beyond the limits of the uterus, either to the vagina or connective tissue round the cervix, and any operation having for its object the cure of the disease, or even prolonged freedom from recurrence, is already *ipso facto* contra-indicated. We may therefore conclude that for cases of cancer of the cervix requiring removal of the uterus the operation of election should be vaginal hysterectomy.

When, however, we come to consider cases of primary cancer of the body of the uterus we are on much more debateable ground. In cancer of the body of the uterus the cervix, and especially the vaginal portion of the cervix, is generally altogether unaffected. At times in rare instances the malignant growth has spread a variable distance down the cervical canal, and it may even show at the external os uteri. This is a very rare event, and even when it occurs the outer surface of the vaginal portion is not involved. Hence in performing abdominal pan-hysterectomy, when the vagina is opened into from above, so long as the incisions clear the cervix—and it is a matter of no particular difficulty to make sure of this—there is no risk of leaving some of the malignant growth behind. Again, the body of the uterus is considerably enlarged, and on the other hand, as the subjects of this disease are for the most part elderly women between 50 and 60 years or older, the vagina is narrow from the contraction due to the senile atrophy occurring after the menopause. As many of the patients are sterile the vagina has, even before the menopause, not been dilated to the capacity found in parous women. Both on account of the size of the uterus and of the narrowness of the vagina removal of the uterus from below is a more difficult matter than from above. In abdominal hysterectomy, also, the fact that it is an easy matter to remove the ovaries and tubes with a good width of the upper part of the broad ligament on each side of the uterus is, in primary cancer of the body, a distinct advantage. An objection to the abdominal route deserving mention is the risk of fouling the peritoneum with the discharge escaping from the os uteri as the uterus is brought upwards. This may, however, be avoided by passing a stout ligature through the vaginal portion of the cervix so as to encircle the os, and tying it tightly.

One more important question is the relative mortality of the two operations. Soon after Czerny had re-introduced vaginal hysterectomy in 1879 Freund began to remove the uterus by abdominal section. The mortality, as is stated in Greig Smith's work on Abdominal Surgery, was nearly 70 per cent. The mortality of vaginal hysterectomy for cancer about the same time or within the next five years was nearly 30 per cent. Thus the abdominal method, being so much the more dangerous, gradually fell into complete disuse, and for some years vaginal hysterectomy alone was practised. Though the operation for cancer had been abandoned, the technique of abdominal hysterectomy for fibroids continued to receive the closest attention from many operators. In this way were evolved the two operations for fibroids now in favour—first, abdominal hysterectomy with intra-peritoneal treatment of the cervical stump, the essential point in the operation being the ligature of the uterine arteries outside uterine tissue; and next abdominal pan-hysterectomy, or removal of the whole uterus by an operation conducted entirely from above. Both these operations have now a very low mortality, probably not exceeding 5 per cent. I was led to perform abdominal pan-hysterectomy for fibroids by reading Martin's paper in the Transactions of the Edinburgh Obstetrical Society for 1896, and I have adopted it in five cases, all of which have made uneventful recoveries, though in most of my hysterectomies for fibroids I have been quite content with abdominal hysterectomy with intra-peritoneal treatment of the stump. Of course, it must not be forgotten that during the period in question the mortality of vaginal hysterectomy for cancer has also been greatly reduced. In my own series of 40 cases, already referred to, the mortality, for instance, was 7½ per cent. It is probably not far from the truth to say that at the present time, in the case of an operator who has had experience in both operations, there is not much difference in the mortality of abdominal pan-hysterectomy and vaginal hysterectomy for cancer. On the whole, therefore, it seems to me that, for cancer of the body of the uterus, abdominal pan-hysterectomy has in many cases preponderating advantages.

Although, as above mentioned, I have performed abdominal pan-hysterectomy for fibroids I have as yet only performed the operation for cancer of the body of the uterus in two cases, the notes of which are as follows.

CASE 1.—A woman, aged 54 years, came to see me on Feb. 12th, 1900. She had been married for 15 years but had never been pregnant. She had been quite regular up to the age of 50 years, when she had synovitis, and stayed in bed for some time, after which menstruation ceased altogether. In July, 1899, she began to have some vaginal discharge. It was at first colourless, but afterwards sometimes yellow and sometimes of a brown colour, and continued up to the time I saw her. She had no pain at all, and did not think that she had lost weight. The discharge had at times had an unpleasant smell. There was nothing else in the history of any special interest. Nothing abnormal was detected on examining the abdomen. On vaginal examination the external genitals were redder than normal and slightly sore-looking, and there was some yellow discharge at the vaginal orifice. The vagina was extremely narrow and examination with one finger caused a good deal of discomfort. On this account the examination was not very satisfactory, but, as far as could be made out, the uterus was freely moveable, and the external os was rather small. There was nothing abnormal as regards the vaginal portion of the cervix. The extreme narrowness of the vagina was shown by the fact that the patient could not bear the smallest Fergusson's speculum to be passed. A

FIG. 1.

The uterus removed in Case 1. It has been laid open by a longitudinal incision through the anterior wall. The growth is seen springing from the posterior surface of the endometrium near the fundus. An incision has also been made through the upper part of the posterior wall of the uterus. On the cut surface the deeper portion of the growth is seen penetrating the uterine tissue. This specimen illustrates carcinoma of the body of the uterus at an earlier stage than in any other I have seen. The uterus as a whole is practically not enlarged. (Shown at the meeting of the Obstetrical Society of London on Jan 1st.)

small rectal speculum was, however, passed into the vagina, but, as it was rather less than half the length of an ordinary Fergusson's speculum it only showed the lower two inches of the vaginal walls, which were thinly covered with the yellow discharge above mentioned. I advised the patient to have the cervix dilated sufficiently to allow the interior of the body of the uterus to be examined with the finger. She consented to have this done, but as she wished to return to the north of England for a fortnight it was not till March 1st that she entered Fitzroy House. The next day, with the usual antiseptic precautions, a specially prepared laminaria tent was inserted into the cervix. To do this, owing to the narrowness of the vagina, it was necessary to have the patient anæsthetised. Speaking from memory, I believe I have only once before found it necessary to have the patient anæsthetised for the insertion of tents, so that it will be seen that the narrowness of the vagina was such as to cause real difficulty in dealing with the case. On March 3rd the dilatation of the cervix was completed under an anæsthetic with Hegar's dilators. A growth was found high up in the endometrium. A portion of it was removed for microscopical examination, though I felt little doubt after the digital examination of the endometrium that the growth was malignant. The portion of growth removed was sent to the Clinical Research Association and Mr. J. H. Targett reported that it was carcinomatous. The patient was accordingly advised to have the uterus removed, and to this she consented.

The operation was performed on April 11th. The preliminary dilatation of the cervix for diagnosis had been so difficult on account of the narrowness of the vagina that I decided to remove the uterus by abdominal pan-hysterectomy. The method was the same as that adopted in four cases of pan hysterectomy for fibroids, an account of which has already been published.[1] In this case the vagina was douched with a solution of perchloride of mercury (1 in 1000) just before the operation, but I did not make any attempt to occlude the cervix by a suture, or to pack it before beginning the abdominal section. The right uterine appendages were removed with the uterus, but the left appendages were not removed. The ligatures on the uterine arteries and on vessels in the cut edges of the vaginal walls were left long and drawn down into the vagina by long Wells's forceps passed up from the vagina by an assistant. A gauze drain was drawn down from above into the vagina, about an inch of it being left projecting into the peritoneum. The abdominal wound was completely closed. The patient made an uninterrupted recovery, and the ligatures came away at the end of the fifth week.

The following is a description of the specimen: "The uterus has been laid open by an incision from the external os to the fundus through the anterior wall. The extreme length of the uterus is three inches. At the extreme highest point of the endometrium, and extending downwards for an inch and a quarter on the posterior wall, is a new growth projecting only slightly above the general surface of the endometrium. Its surface is faintly papillary. A sagittal section has also been made through the growth and the wall of the uterus from which it springs. This shows that the growth penetrates deeply into the uterine wall, the limit of its penetration, to the naked eye, being marked by a sinuous, irregular, whitish border." A portion of the growth was sent to the Clinical Research Association and Mr. Targett reported on it as follows: "The wall of the uterus is deeply invaded by a very soft columnar-celled carcinoma. The growth is much degenerated and therefore stains badly. It is a primary carcinoma of the body of the uterus."

CASE 2.—A woman, aged 57 years, was admitted under my care into the London Hospital on Oct. 5th, 1901, at the request of Dr. W. C. Taylor of Victoria Dock-road, London, E. She had been married for 36 years, and had had six children, the last 21 years ago, and two miscarriages, the last 19 years ago. Menstruation began when she was between 16 and 17 years of age and occurred regularly every four weeks without any pain. Two and a half years ago menstruation ceased for 10 months. Then the periods came on for three months at monthly intervals. Each of these periods was like what she had always had except that she lost a larger quantity than formerly and clots were passed. She had been subject to bronchitis and asthma up to last year; she used to have quinsy 20 years ago. There was no history of syphilis, nor had she ever had any severe illness. Her family history was good. Two and a half years ago the periods ceased for 10 months, then they recurred three times at monthly intervals; after that, however, the loss of blood became more or less continuous. Sometimes clots were passed, but the discharge was never offensive. The discharge during the previous three months had not been quite so profuse as before, but she had had constantly

FIG. 2.

The uterus removed in Case 2 and laid open by an incision through the anterior wall. The malignant growth occupies nearly all the endometrium and terminates below by a raised border slightly convex towards the internal os. It is worth noticing that, contrary to the usual experience in similar cases, the patient from whom this specimen was removed had been pregnant 8 times. (The specimen was shown at the meeting of the Obstetrical Society of London on Jan. 1st.)

to wear a diaper. Since April she had had pain on the right side running from the back to the right groin, and also aching in the right thigh. It was not constant, for sometimes she would be free from pain for 12 hours. When present it was aching, with an occasional severe shooting or cramping feeling. Sometimes the pain made her sick, and caused her to perspire, especially at night. It was relieved by sitting up or by walking about, and sometimes by alcohol. She had had no trouble with micturition, but the bowels had been constipated and she took aperients frequently. During the eight months before admission she had lost two stones in weight. From the above account it appears that there had been more or less constant blood-stained discharge for about 17 months and that she had had pain for six months prior to her admission to the hospital. On admission she was found not to be anæmic. She had a rather worried expression. Her weight was nine stones two pounds. On the 7th she was anæsthetised and a careful examination was made with the patient in the lithotomy position. With Sims's speculum it was seen that the vaginal portion of the cervix was healthy except for a slight erosion on the posterior lip. The cervix when drawn upon with a volsella did not come down well. Bimanually the uterus was found to be enlarged, but only fairly moveable; the sound passed three and a half inches. The cervix was dilated up to Hegar's dilator No. 19 without any difficulty, there being only slight resistance as each dilator was passed, and that at the external os. The finger passed into the uterus came upon a growth, chiefly on the posterior wall; it was not of the soft papillary variety. It terminated below by a raised, somewhat rounded border. The growth extended so low in the body of the uterus that it was not quite certain at this examination that the growth had not extended into the cervical canal. (Subsequent examination of the specimen, however, showed that it had not involved

[1] THE LANCET, July 8th, 1899, p. 82.

the cervix.) There was no offensive smell about the examining finger.

The operation was performed on the 14th. The patient was anæsthetised and put in the lithotomy position. After disinfecting the vagina as well as possible with a lotion of perchloride of mercury (1 in 1000) the cervix was exposed and seized with a volsella. A stout silk ligature was passed through the vaginal portion with a strong needle in a handle from behind forwards on the left side of the os uteri. The needle, unthreaded, was then passed similarly on the right side of the os, threaded with the anterior end of the ligature already passed, and withdrawn. The ligature was then tied as tightly as possible, thus occluding the external os. The patient was then put into the Trendelenburg position and abdominal pan-hysterectomy was performed. The right uterine appendages were removed, but the left appendages were allowed to remain. There were some adhesions on the left side which had to be separated before the uterus could be drawn out freely. The limited mobility of the uterus observed at the previous examination was no doubt due to these adhesions. When the uterus had been removed all the ligatures were drawn into the vagina and a strip of iodoform gauze was also drawn into the vagina. About one inch of it was left projecting into the peritoneal cavity. The abdominal wound was then completely closed. The subsequent progress of the case was uneventful. The ligatures were not loose when she left the hospital; they were cut a good deal shorter a few days before she went away, so that it would be impossible for any of them to project from the vagina. She went to a convalescent home on Nov. 9th.

The following is a description of the specimen: "The uterus has been laid open from the front. Its extreme length is three and three-quarter inches. The cervix to the naked eye appears quite healthy, and is very short. Almost the whole of the endometrium is occupied by a new growth; this is raised about a quarter of an inch above the general level and its edge distinctly overhangs the adjacent apparently healthy endometrium. In the downward direction the growth extends very nearly to the internal os and terminates by a semicircular border convex downwards." A portion of the growth was sent to the Clinical Research Association and Mr. Targett reported on it as follows: "This is a columnar-celled carcinoma of the body of the uterus originating in the endometrium and invading the muscular coat. The tubular arrangement of the cells is very distinct."

Harley-street, W.

ON TWO CONTRASTED CASES OF HYSTERECTOMY: ONE DURING PREGNANCY, THE OTHER IN PUERPERY.

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ON August 28th, 1901, at the Middlesex Hospital I performed abdominal hysterectomy on two patients for conditions in regard to the proper treatment of which gynæcologists and obstetricians hold anything but unanimous opinions. The two cases stand in striking contrast, for in Case 1 the operation was undertaken with the view of averting a dangerous condition which had actually supervened in Case 2, and not only placed the patient's life in the gravest peril but surrounded the operation and the convalescence with great danger.

CASE 1.—A well-developed woman, 28 years of age, sought advice for an abdominal swelling which, she said, had recently grown much larger and had become painful. On careful inquiry we elicited two very important facts—first, that her menstruation, never profuse, had been in abeyance three months. On examination a hard rounded swelling as big as a fist occupied the right iliac fossa: a larger rounded tumour could be felt immoveably impacted in the pelvis to the left of the cervix, whilst the vaginal portion of the cervix was pushed to the left side, and in order to reach it the finger had to sweep over the rounded contour of the impacted tumour which appeared to usurp all the available space in the true pelvis. Pressure on the tumour caused pain and there was some difficulty with the rectum, but fortunately there was no interference with the bladder. The nature of the case was very clear—namely, fibroids impacted by pregnancy. So firmly was the tumour incarcerated that I had no hesitation in recommending the patient to submit to operation. I was very careful to explain to the class the reason for this advice. When the uterus is distorted by fibroids and so much displaced as in this case abortion is sure to occur; the damage to the fibroid which is inevitable in such circumstances would place the patient's life in the gravest peril if she should become septic. Even apart from this risk we now realise that pregnancy in itself leads to some little-understood changes in fibroids quite apart from septic infection. In deciding the question of pregnancy I was careful to point out that there were no physical facts to guide me, but I relied on the three months' amenorrhœa in a buxom woman, her statement that the tumour had lately very markedly increased in size, and the firmness of the impaction.

At the operation the uterus was found to be more displaced than had been anticipated. A large tumour in the anterior wall was impacted in the pelvis, the gravid uterine body was situated in the hypogastrium, and the tumour in the posterior wall of the uterus occupied the right iliac fossa, so that the uterus was not only rotated through 90°, but also acutely flexed. I performed supra-vaginal hysterectomy and left both ovaries and Fallopian tubes, as they appeared healthy. The patient made a quick and satisfactory convalescence.

The uterus with the tumours was carefully hardened and then sectioned in a sagittal direction (see Figure). It

A gravid uterus shown in section; it is deformed by fibroids. Removed from a woman 28 years of age. The arrow lies in the cervical canal.

measured in its antero-posterior (sagittal) axis 20 centimetres after it had been hardened and as the conjugate diameter of the pelvis is at most 10 centimetres it is clear that a great amount of rotation had slowly taken place to allow the parts to accommodate themselves in the pelvis. I have already drawn attention in THE LANCET[1] to a very similar case. The tumours in this specimen on section exhibited irregular dark red streaks: they were most marked in the larger tumour which had in addition undergone myxomatous changes and its central portion was diffluent.

CASE 2.—This patient was a married woman, 36 years of age. In 1896 she had been delivered of a healthy child. Two years later a fibroid of the size of a turkey's egg was

[1] THE LANCET, Feb. 16th, 1901, p. 452.

detected in her hypogastrium. Towards the end of 1900 she became pregnant a second time and was delivered of the child in July, 1901. A few days after the birth of the child the fibroid became very tender and the woman had irregular losses of blood from the uterus, and at the end of three weeks she had a severe "flooding" which Mr. W. K. Loveless feared would end her life, and a repetition of this severe bleeding a few days later induced him to place the patient under my care. The woman was profoundly anæmic and had a tumour of the size of a cricket-ball, very tender, freely moveable, but sessile, in a puerperal uterus. A few days later I exposed the parts through an abdominal incision and found a smooth fibroid sessile on the anterior wall of the uterus, resembling in shape an acorn in its cup. The ovarian and uterine vessels were secured and the uterus with the tumour cut away at the junction of the body with its neck. Immediately a lot of fœtid fluid and débris escaped, but I had carefully isolated the parts with sterilised dabs. The ovaries and Fallopian tubes were then removed as the tubes contained pus. I did not dare to allow the stump to return into the pelvis, so after surrounding it with the parietal peritoneum and completely isolating it I imbedded it in the lower angle of the incision and secured it with sutures of fish-gut. For 10 days after the operation there was a free discharge of sloughs from the stump and also from the vagina, but by assiduous dressing the parts were kept sweet and they quickly cleaned. Five weeks after the operation the patient left the hospital convalescent.

The tumour on section was of the colour of mahogany; its central parts and that segment of its circumference in relation with the uterine cavity were soft and almost diffluent. Bacteriologic examination of the solid peripheric portion of the tumour was negative and on microscopic investigation the tumour presented the structure of a typical fibro-myoma thickly splashed with blood pigment, but no obvious extravasation of blood corpuscles.

A careful study of a number of fibroids obtained from gravid uteri shows that under these conditions fibroids are very prone to undergo degenerative changes and are especially liable to soften. The peculiar alteration in colour is another feature which in my observations has been entirely confined to fibroids complicating pregnancy. The common colour of a fibroid is dirty-white or a very pale yellow; in many degenerating fibroids the yellow deepens. In pregnancy the fibroid usually assumes a deep red or a mahogany tint. In the early stages the tumour exhibits this colour in streaks, but as the pregnancy advances the whole tumour becomes affected. The clinical facts of the two cases considered in this communication are interesting from another point of view. In ordinary circumstances fibroids are painless tumours, hence it may be taken as an axiom that *when a fibroid becomes painful it signifies that the tumour is undergoing secondary changes or that some complication has arisen in the pelvis.*

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THE DISAPPEARANCE OF THE ADDIMENT FROM ANTI-MICROBICS ERA.

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A PRELIMINARY NOTE.

IN a previous communication[1] I have shown by animal experiments that the bacteriolytic addiment of fresh normal serum tends to disappear with considerable rapidity, and is no longer present in a serum which has been kept for several days. In order to examine further the phenomenon of its disappearance I have lately made experiments of which the following is a brief summary.

A number of rabbits were immunised by the successive injection of increasing doses of living typhoid culture and were subsequently bled for the preparation of serum. The sera thus obtained were examined for bacteriolytic action on the bacillus typhosus and were compared with the fresh sera of five normal healthy rabbits. The following procedure was employed. The blood was received in sterile test tubes, and so soon as fluid began to separate from the clot a specimen was removed. After an interval of from four to six hours from the time of bleeding a second specimen was taken, and at the end of 24 hours the remaining serum was separated from the clot and tubed for future use.

Anti-bacterial action was tested as follows. A given number of drops of the specimen of serum to be examined were measured into test tubes by means of a pipette, the same pipette being used throughout the observations. Each tube was then inoculated with one loopful of a typhoid culture grown for 24 hours in 10 cubic centimetres of bouillon. The tubes were incubated during a period of three hours; to each was then added a given quantity of gelatin which had been previously melted and the contents were thoroughly mixed and rapidly plated. Colonies were counted after three days' growth. In every case a control-plate was made with uninoculated serum to test its sterility, and another with one loopful of the typhoid culture inoculated for three hours in a few drops of ordinary bouillon for comparison with the inoculated serum. Where the colonies were numerous they were approximately estimated by means of an apparatus in which about 500 squares were equal to the area of the plates employed. Up to 100 colonies per square could be counted with the magnifying-glass with moderate accuracy. Above this number I have used the term "uncountable" where the colonies were obviously less numerous than those in the control without serum, and the sign ∞ where no such difference was appreciable. Where there were upwards of 5000 colonies the number is given approximately to the nearest 1000 and where the colonies were present in many thousands their number was estimated to the nearest 5000 or 10,000. The results are given in Table II., where N. 1, 2, 3, 4, 5 are sera of five healthy normal rabbits, and I., *a*, *b*, *c*, *d*, *e*, those of five rabbits lightly immunised against the bacillus typhosus under the following table (Table I.).

Similar observations made with the fresh sera of two horses immunised for the production of anti-streptococcic serum gave with a streptococcus virulent for animals the following results, the horse sera being denominated S. 1 and S. 2:—

TABLE III.—*Streptococcus Plates.*

Age of serum.	Drops of serum.	Strepto-coccus bouillon culture.	N. 4.	S. 1.	S. 2.
1 hour ...	5	1 loopful.	∞	—	50,000
	10	,,	∞	—	16,000
3 hours ...	5	,,	∞	1800	—
	10	,,	∞	900	—
4 ,, ...	5	,,	∞	—	10,000
	10	,,	∞	—	6,000
6 ,, ...	5	,,	∞	40,000	—
	10	,,	∞	16,000	—
24 ,, ...	5	,,	∞	Unc.	Unc.
	10	,,	∞	50,000	40,000
2 days ...	5	,,	∞	∞	∞
	10	,,	∞	Unc.	Unc.
3 ,, ...	5	,,	∞	∞	∞
	10	,,	∞	∞	∞

Unc. = uncountable. A dash signifies that no observation was made.

Several interesting points appear in these results with which I hope to deal more fully on a subsequent occasion, but that to which I wish at present more particularly to direct attention is the fact that the bacteriolytic power of a fresh serum rapidly diminishes both in the immune and in normal sera, and ceases to be recognisable within a few days from the time of bleeding. Hence it appears that as regards experiments in *bacteriolysis* the age of the serum which supplies the addiment is a factor of the first importance, and that observations on *bacteriolytic* action with an addiment-containing serum cannot be properly compared unless they are performed at the same time, since the *bacteriolytic*

[1] THE LANCET, Oct. 19th, 1901, p. 1030.

TABLE I.—IMMUNISATION OF RABBITS.

Rabbit.	Day 1.	Day 3.	Day 5.	Day 10.	Day 14.	Day 21.
I. *a*	$\frac{1}{10}$th of a 24-hours old agar culture subcutaneously.	$\frac{1}{10}$th of a 24-hours old agar culture subcutaneously.	$\frac{1}{10}$th of a 48-hours old agar culture subcutaneously.	Bled.	—	—
I. *b*	,, ,,	,, ,,	,, ,,	$\frac{1}{10}$th of a 48-hours old agar culture subcutaneously.	Bled.	—
I. *c*	,, ,,	,, ,,	,, ,,	,,	,,	—
I. *d*	,, ,,	,, ,,	,, ,,	—	—	Bled.
I. *e*	,, ,,	,, ,,	,, ,,	$\frac{1}{10}$th of a 48-hours old agar culture subcutaneously.	—	,,

TABLE II.—SHOWING THE NUMBER OF COLONIES IN THE TYPHOID PLATES.

Age of serum.	Drops of serum.	Typhoid culture.	N. 1.	N. 2.	N. 3.	N. 4.	N. 5.	I. *a*.	I. *b*.	I. *c*.	I. *d*.	I. *e*.
1–2 hours ...	5	1 loopful.	—	—	—	—	—	—	—	—	450	2
	10	,,	1,000	800	—	—	—	300	600	300	300	1
	20	,,	400	250	—	—	—	100	250	100	—	—
	30	,,	250	70	—	—	—	—	150	20	—	—
4–6 ,,	5	,,	—	—	1,500	3,500	2,000	—	—	—	3	3
	10	,,	3,000	600	700	1,500	800	20	600	100	1	1
	20	,,	2,000	120	—	—	—	10	300	35	—	—
	30	,,	1,000	40	—	—	—	—	150	10	—	—
24 ,,	5	,,	—	—	8,000	9,000	10,000	—	—	—	70	800
	10	,,	5,000	1,000	3,000	4,000	4,500	300	2,000	1,500	20	400
	20	,,	2,500	200	—	—	—	100	800	500	—	—
	30	,,	—	50	—	—	—	—	300	200	—	—
2 days	5	,,	—	—	20,000	Unc.	Unc.	—	—	—	2,000	7,000
	10	,,	16,000	5,000	7,000	20,000	30,000	20,000	30,000	15,000	800	3,000
	20	,,	9,000	1,500	—	—	—	10,000	12,000	7,000	—	—
	30	,,	—	300	—	—	—	—	—	—	—	—
3 ,,	5	,,	—	—	50,000	∞	∞	—	—	—	10,000	55,000
	10	,,	Unc.	8,000	30,000	Unc.	Unc.	Unc.	Unc.	50,000	2,500	40,000
	20	,,	Unc.	5,000	—	—	—	Unc.	Unc.	30,000	—	—
4 ,,	5	,,	—	—	Unc.	∞	∞	—	—	—	50,000	Unc.
	10	,,	∞	40,000	Unc.	∞	∞	∞	∞	Unc.	30,000	Unc.
	20	,,	∞	—	—	—	—	∞	∞	Unc.	—	—
5 ,,	5	,,	—	—	∞	—	—	—	—	—	Unc.	∞
	10	,,	—	Unc.	∞	—	—	∞	∞	∞	Unc.	∞
	20	,,	—	—	—	—	—	∞	∞	∞	—	—
6 ,,	5	,,	—	—	∞	—	—	—	—	—	∞	—
	10	,,	—	∞	∞	—	—	—	—	∞	∞	—
	20	,,	—	—	—	—	—	—	—	∞	—	—

Unc. = uncountable. A dash signifies that no observation was made.

addiment of the given serum may undergo considerable diminution in a few hours. This fact may throw some light upon the want of harmony in many of the results which have been published, and certainly affects the value of a number of recorded observations.

Berne.

BEEF-WORM IN THE ORBITAL CAVITY.

BY THOMAS W. F. GANN, M.R.C.S. ENG., L.R.C.P. LOND., L.S.A.,
DISTRICT SURGEON, COROZAL, BRITISH HONDURAS.

To anyone who has lived for any length of time in either Central America or South America the parasite known as the "beef-worm" must be familiar either from hearsay or possibly from painful personal experience, as, though fortunately not of common occurrence, it is one of the most distressing and painful of the innumerable insect pests of these regions.

The creature starts in life as an egg, which being laid by the parent fly beneath the human skin or mucous membrane soon hatches out into a small worm which rapidly increases in size and reaches in a few months a length of from one to two inches and a diameter of from three-eighths to three-quarters of an inch. The worm is of a dull greyish-white colour, divided into from 12 to 20 segments and covered by stiff black hairs or bristles, according to its age, along the middle two-thirds of its body, each segment possessing a separate row of hairs completely surrounding its anterior and posterior margins. The tail end

communicates with the exterior by a circular orifice surrounded by a prominent raised margin, the head end being deeply embedded in the tissues and supplied with two strong, semi-circular, black hooks, by means of which it attaches itself firmly, rendering its expulsion extremely difficult. It advances and withdraws its tail with a sort of rhythmic motion which gives rise to the characteristic sensation of "something moving and alive" within the swelling caused by it upon the skin or mucous membrane. The parts most affected by this parasite are the extensor surfaces of the arms and legs, the back, and shoulders and the chest; but exceptional cases have been recorded of its occurrence in the face and even upon the penis.

Certain individuals appear to be particularly susceptible to the worm, and if one of these should go into a district infested by it he is practically certain to become the host of one or more. Negroes are far more susceptible than are whites. Other persons, again, appear to enjoy complete immunity from the pests; they may go into a district swarming with the worms, sleep on the ground out of doors without a net for months at a time and never get a single one, though other persons of the same colour and nationality would under similar circumstances be literally eaten alive. The worm appears to be limited to small and clearly-defined districts within which a man may, if he sleeps uncovered for a single night, be almost certain of contracting it, though less than a mile distant perfect immunity is enjoyed.

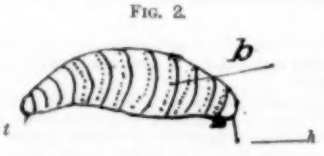
The present case of a beef-worm in the orbit is, so far as I am aware, unique. The patient, a Spanish lad, about 18 years of age, came to me on Sept. 16th, 1901, stating that he had been living for some considerable time in the bush and that during the last three months he had been suffering from pain and inconvenience in the left eye, together with a sensation as if something were moving about within the socket. On examination the eye was seen to be a good deal more prominent than its fellow; the conjunctiva was more or less congested throughout its whole extent and the entire inner canthus of the eye was enormously bulged forward. Immediately to the inner side of the caruncula lacrymalis was a circular opening about one-twelfth of an inch in diameter, surrounded by a prominent rim, and at the bottom of this opening appeared a small, whitish knob which from time to time was slightly protruded beyond the opening, but if touched it was immediately withdrawn so far back as to become almost invisible (Fig. 1). The negro method of treating the worm is

FIG. 1.

Rough diagram of the eye of the patient, the shaded portion indicating the inflammation and protrusion of the inner canthus. *a*, Circular aperture with prominent raised margin through which the tail-end of the worm protruded from time to time.

first to cover the hole over with a plug of wet tobacco for a day or two, and then with great force to squeeze it out, the tobacco appearing to make the creature lose its hold with the hooks attached to its head. This method was obviously impossible in the eye, so I injected a few minims of a strong solution

FIG. 2.

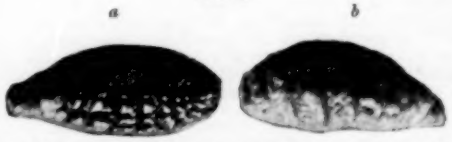


Rough diagram of the beef-worm. *h*, Head, showing two short black hooks with which the worm affixes itself to deep tissues; *t*, tail; and *b*, bristles. These bristles are set in rows around each segment of the middle two-thirds of the worm.

of tobacco into the aperture with a hypodermic syringe and then covered it over with a plug of moist tobacco-leaf and left it for a couple of hours. On removing the tobacco-plug I found the creature much less active, and after some little trouble I managed to seize the tail-end with a fine forceps and little by little to withdraw the whole worm. The patient made a good recovery and did not lose the sight of his eye.

I inclose a rough sketch and two photographs of the worm (Figs. 2 and 3), as well as the creature itself preserved in

FIG. 3.



(*a*) The ventral aspect, and (*b*) the left dorsal aspect—of the actual worm; life-size. From photographs.

alcohol; it measured when first extracted one and three-eighths inches in length by three-eighths of an inch in diameter and was covered over the middle two-thirds of its body by short dark bristles. It is only about half-grown, as in the full-grown worm these bristles attain a length of half an inch or more.

The curious point about this case is how the fly managed to lay its egg in such an exceedingly sensitive spot as the inner canthus of the eye without the sufferer becoming aware of the fact.

Corozal, British Honduras.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF VAGINAL ATRESIA.

BY F. SIDNEY GRAMSHAW, M.D. ST. AND.

A WELL-DEVELOPED, tall girl, aged 18 years, was brought to me on Dec. 17th, 1901, under the suspicion that she was pregnant. She complained of much pain, and her abdomen was very hard and enlarged, so as to give the impression that she was at least seven months advanced in pregnancy. I ordered her to bed and found on examination that the breasts were quite virginal and that the abdomen was distended by what appeared to be a tumour of extreme hardness. The mother informed me that the girl had never menstruated. The vagina was perfectly occluded by a firm tense hymen which on examination presented no trace of any orifice or cicatrix. It bulged outwards, putting all the soft structures on the stretch. Having placed the patient in the lithotomy position I made a small transverse incision with a tenotomy knife, when a column of dark brown, thick grumous fluid spurted up more than two feet into the air. I inserted a tube and gradually allowed about five pints of this fluid to escape. It was so thick that two hours were occupied in its withdrawal. I then flushed out the vagina with boric lotion and left the tube *in situ*. In the next 12 hours about two pints more drained away. The patient is now going on well, the uterine cavity and vagina being flushed out daily with 1 to 80 lysol solution. I propose to enlarge the opening when the uterus is of normal size.

Stillington, Yorks.

NOTE ON A CASE OF STRANGULATED INGUINAL HERNIA IN AN INFANT NINETEEN DAYS OLD; OPERATION; RECOVERY.

BY JOHN D. RICE, M.B., B.CH. R.U.I.,
ELTHAM COTTAGE HOSPITAL.

ON the evening of Oct. 27th an infant, aged 19 days, was brought to me by his mother with a lump in his left inguinal region. On examination I found a tense swelling partly filling the left side of the scrotum and the inguinal canal. No

impulse could be felt or seen when the child cried. A percussion note could only be considered doubtful, if anything dull. There was considerable œdema, with redness of the skin and subcutaneous tissues. The swelling (which I could not reduce) was also painful and the child cried lustily when touched. As there had been no vomiting or retching and the general condition of the child was good I prescribed an evaporating lotion and told the mother to put the little one to bed and to raise the buttocks on a pillow, as I thought that it might possibly be hydrocele of the cord. The next day there was a marked change for the worse. Vomiting had commenced and bloody mucus in small quantities was passed per anum. Without delay I had the child removed to the Eltham Cottage Hospital and at 5 P.M., after the administration of an anæsthetic, I cut down on the swelling and found a very tight stricture at the upper end of the inguinal canal. When this was divided the gut slipped back into the abdomen; the colour of the intestine though dark was not black. I put in a few deep sutures of silk and closed the wound rapidly, as the patient's condition was becoming alarming. A collodion and antiseptic dressing was applied and the usual stimulants to combat shock were administered. The child rallied well, ceased to vomit, and took the breast vigorously a few hours after operation. Convalescence was uninterrupted, and at the end of a fortnight the little patient was sent home, the wound having practically healed by first intention, and now after nine weeks there is only a fine scar with no bulging even on crying lustily.

I may add that immediately before operation the child was almost moribund, and I warned the parents that the chances were against his surviving the operation (the stricture having then lasted 39 hours and also considering the age of the patient). My best thanks are due to Mr. H. Sandford Smith, who administered the anæsthetic, and to the nursing staff of the Eltham Cottage Hospital for their assiduous care of the infant.

New Eltham.

A NOTE ON THREE CASES ILLUSTRATING THE VALUE OF SUPRARENAL EXTRACT.

BY WALTER HENRY BROWN, F.R.C.S. IREL.

CASE 1.—A man, aged 53 years, had been for the last 12 months suffering from profuse sweating following on an attack of nephritis. The sweating was so severe that latterly he had to change his clothing two or three times daily. He was passing only about six ounces of urine in the 24 hours. During the year he had lost two stones in weight. For the whole year he had been under treatment, but the sweating persisted and even increased. I put him on suprarenal tabloids. In two days the sweating began to subside and at the end of four days it had entirely ceased. Further, on the fourth day a normal quantity of urine was passed.

CASE 2.—A patient, aged 30 years, a "bleeder," suffered from hæmorrhoids. The bleeding was very severe, often soaking through his clothes, and he was beginning to suffer from the effects of the continuous drain. From the family history it did not seem to be a suitable case for operation, so I put him upon suprarenal extract, with the result that in a week's time the bleeding ceased and it has not yet returned.

CASE 3.—The patient, a woman, aged 36 years, had been much reduced by persistent hæmorrhage from a uterine myoma. Ergot and mineral acids had been tried without benefit; but within 48 hours of her taking suprarenal extract the bleeding ceased.

I record these instances of the power of this animal extract in the hope that my experience may be of benefit to others. In the first case related the patient had been examined by several medical men, but not one had seen such terrible distress in a man who was otherwise quite well. It is interesting to note that the quantity of urine passed increased as rapidly as the sweating diminished.

Leeds.

SOUTH DEVON AND EAST CORNWALL HOSPITAL.—As a result of the recent Hospital Saturday in Plymouth the sum of £563 has been handed over to the South Devon and East Cornwall Hospital.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

GREAT NORTHERN CENTRAL HOSPITAL.

A CASE OF EXTREME DILATATION OF THE LARGE INTESTINE NOT DUE TO STRICTURE, TERMINATING FATALLY.

(Under the care of Dr. H. W. SYERS.)

THE rarity of idiopathic dilatation of the colon is very great Some of the cases certainly seem to be congenital in origin, while in another group the disease is apparently acquired. We have practically no knowledge of the etiology of the disease. One of the most striking examples of the disease was described by Dr. H. D. Rolleston and Mr. Warrington Haward.[1] Early colotomy appears to be the only treatment likely to be of any use. In a case under the care of Dr. Osler[2] recovery followed colotomy, but that case was congenital in origin.

In December, 1900, a carpenter, aged 59 years, presented himself in the out-patient room of the Great Northern Central Hospital giving a history of discomfort and distension after food during a period of many months. The abdomen was enormously distended and very tense. He was treated as an out-patient for a few days and then admitted to the ward. He had always been in good health until about 12 months before coming to the hospital. At that time he first noticed uneasy sensations after food and a feeling of fulness. He also observed that the abdomen was larger than was formerly the case. At this time he was much troubled with a frequent desire to defecate but without result; these efforts were attended with considerable straining. When the bowels acted the motions were loose, but no blood was passed, neither was the action accompanied by pain. The swelling of the abdomen gradually increased and he was able to work intermittently only. Six weeks before admission he was compelled to leave off work altogether. At this time the swelling sometimes became much less marked, but it always reappeared, the periods of improvement being of short duration only. He had not noticed that the symptoms were in any way influenced by the nature of the diet, and at no period of the illness had he been troubled with vomiting. The patient's previous health had always been good with the exception that he suffered from acute rheumatism in 1871; he had not, however, experienced any further attack. He appeared to have been a free drinker, but there was no history of syphilis. The family history was altogether unimportant. On admission he was thin and wasted but of good colour. He was somewhat short of breath. There was no complaint of pain. The tongue was clean and the pulse and respiration were of normal frequency. The abdomen was uniformly and greatly distended, being also very tense. The percussion note was everywhere resonant and the liver dulness was altogether obliterated. There was no evidence of the presence of fluid in the peritoneal cavity. Over the back of the chest on the left side the abdominal resonance extended to the angle of the scapula; below this point the breath sounds were almost inaudible. The lungs were healthy at the apices and the heart sounds were normal. The specific gravity of the urine was 1016; it was acid and free from albumin. On rectal examination it was found that the anal orifice was drawn up and contracted, the rectum being greatly distended. There was no growth in this locality. The long rectal tube was passed and a very large quantity of gas escaped, its removal giving the patient much relief. After the use of the long tube the abdomen was still distended, but less so than before the passage of the instrument. When the extreme distension was overcome

[1] Transactions of the Clinical Society of London, vol. xxix., 1896, p. 201.

[2] Archives of Pediatrics, 1893, vol. x., p. 3.

in this way the outlines of the distended intestine could be clearly made out and very marked peristaltic movements were also discernible. No enlarged glands were anywhere to be detected. The patient was ordered a dry diet, the quantity of liquids being restricted as far as possible, and he was kept in bed. No drug treatment had any but the most fleeting influence on the patient's symptoms and physical signs. Neither turpentine, nor strychnine, nor belladonna had any effect in permanently reducing the distension, the only relief, and that purely temporary, being afforded by the passage of the long rectal tube. This proceeding was invariably followed by the passage of great quantities of flatus. The condition of the patient being unsatisfactory and the possibility of a stricture being in question, Mr. E. C. Stabb was asked to see the patient, and it was agreed that the only treatment likely to be of service was surgical. The advisability of laparotomy being performed was then submitted to the patient, but he absolutely declined operation of any kind and left the hospital just after Christmas, against advice. Nothing more was heard of him until the middle of January, when he again applied for admission. His condition was now very serious. He stated that since leaving the hospital the distension had much increased, causing great distress, and that for some days before his second admission he had been troubled with more or less constant vomiting. His pulse was now rapid and feeble and vomiting of stercoraceous matter was frequent. Immediate operation being deemed necessary Mr. Stabb performed median laparotomy; this revealed an enormous distension of the whole of the large intestine, while the small intestine and stomach appeared to be more or less collapsed, owing, doubtless, to the great pressure upon them exerted by the distended colon. The abdomen, so greatly distended before operation as to appear to cover the body of the patient, was practically filled by the enormously distended large intestine, the abdominal wall being stretched to all but the utmost limit of its capacity. No stricture or other obstruction could anywhere be detected. Colotomy was performed, leading to the discharge of an enormous quantity of gas and to the escape of about two gallons of very offensive fluid fæcal matter. A Paul's tube was tied in. The whole operation only occupied a few minutes and was performed under slight anæsthesia, as the serious condition of the patient prevented his being thoroughly anæsthetised. The patient died the next day from heart failure.

Necropsy.—At the post-mortem examination the body was found to be considerably wasted; rigor mortis was well marked. The abdomen was enormously distended, the stomach and the whole of the intestine being dilated to their utmost capacity and showing signs of atrophic catarrh. The transverse colon measured over 15 inches and the sigmoid flexure over 18 inches in circumference. The distended state of the stomach and small intestine differed widely from the condition found at the operation when they were small and collapsed. Doubtless their distension was due to the removal of the pressure of the large intestine when the latter was opened. For the same reason the dimensions of the large bowel during life and before operation were far in excess of the measurements just given. No stricture or growth was found in any part of the intestine large or small. The solar plexus was atrophic; the pancreas was very firm. There were adhesions at both pulmonary apices, otherwise the lungs were healthy except for the presence of œdema. The heart was large and fatty and the aortic valves were incompetent through atheroma. The left ventricle was dilated. The spleen was small and firm; the liver was large and of somewhat granular texture. The gall-bladder was healthy.

Remarks by Dr. SYERS.—This case must be classed amongst those of that extremely rare affection idiopathic paralysis of the intestine. From the article by Dr. W. H. White on the subject in Allbutt's System of Medicine I gather that only 12 such cases have been recorded in 40 years, and that since 1880, during which lapse of time 8000 post-mortem examinations have been made at Guy's Hospital, not a single case has been observed.

As regards the symptomatology in this case it is worthy of note that peristalsis was quite easily observed when the extreme distension had been relieved; no doubt the fact of peristaltic action being only exceptionally noticed was due to the extreme distension of the abdomen. The patient at no time complained of actual pain, but only of discomfort; the latter, however, was often extreme. It was in all probability this absence of pain which led him to decline operation, to which, indeed, he was strongly opposed. At no period of his stay in the hospital was there actual constipation; on the contrary, the bowels were always more or less loose. Vomiting was not noticed during his first residence in hospital, setting in late in the course of the illness and becoming stercoraceous at the end. The use of the rectal tube always gave relief which was unfortunately of but very temporary duration.

As to the cause of the condition, it is impossible to speak definitely. The patient on the whole had always been in good health; he had not suffered from indigestion and the action of the bowels had always been regular. It is possible that the condition of the solar plexus may explain the occurrence of the malady. I have mentioned that the plexus was atrophic, and it is possible that this lesion may have led to the production of atony of the whole intestinal tract, but even assuming this mode of causation of the symptoms we remain completely in the dark as to the why and wherefore of the change in the solar plexus. As in so many other "explanations" of the origin of maladies, nothing more is effected than the removal of the difficulty one step further backwards. It should be mentioned that the suprarenal capsules were in a healthy condition.

As regards treatment the futility of the administration of drugs was strikingly illustrated, as it always is in this class of disease. It is unfortunate that the patient refused operation when he was in hospital for the first time, as his general condition was then fairly good. From this period his health rapidly deteriorated, and when he again entered hospital an operation could do no more than afford a slender chance of prolonging his life. The case is an extremely unusual one, and its pathology is most difficult, indeed, impossible, according to our present lights, to understand. But on this account it is only the more worthy of record.

My best thanks are due to Mr. A. Whitmore, the house physician, from whose notes the history of the case has been abstracted.

EGERTON HOSPITAL, PESHAWAR.

A CASE OF GASTROTOMY FOR REMOVAL OF FOREIGN BODIES FROM THE STOMACH; RECOVERY.

(Under the care of Lieutenant-Colonel G. W. P. DENNYS.)

THE question of the treatment of foreign bodies in the stomach is sometimes difficult. If there is any chance of their passing into the intestine operation may be delayed until symptoms arise. Feeding with pultaceous food will generally be followed by the passage of the foreign body, but purgatives should be eschewed. The chief reason for operation in the following case was the large number of coins present. A very excellent example of the foreign bodies which can pass through the whole alimentary canal is to be found in THE LANCET[1]; in this case a man had been in the habit for 14 years of swallowing stones. On one occasion he claimed to have swallowed nine and a half pounds, and when in the Peterborough Infirmary under the care of Dr. Cane 66 stones were removed from the rectum and 25 more were passed later.

A powerfully-built, healthy looking, little man, about 30 years of age, came to the Egerton Hospital, Peshawar, on Oct. 20th, 1901, and gave the following extraordinary story. He said that he was an Afghan, that he resided in a village in Afghan territory several marches across the border, and that he was an ardent disciple of a mulla (holy man) who lived in the Peshawar district. He had been in the habit of making periodical visits to this mulla with the object of receiving religious instruction in the Mahomedan faith. Eight days before he consulted Lieutenant-Colonel Dennys he said that he was coming into British territory on a visit to his mulla. On arriving at a place called Dakhi (one march beyond Landi Kotal) he found that all travellers were searched by the Amir of Kabul's order and that all property in their possession, including money, was taxed. He said that a tax of 3 per cent. was levied on all cash in the possession of travellers, and that in order to evade this tax he conceived the idea of swallowing all the money he had with him. While some of his companions were being searched he set to work to swallow, as fast as he could, a sum of 65 Kabuli rupees which he had with him. He had nearly completed

[1] THE LANCET, March 18th, 1899, p. 764.

his wonderful feat when the Amir's officials detected his game and rushed at him. He took to his heels and ran down the road, swallowing as fast as he could as he ran the remainder of the cash, but before he could finish his "meal" he was caught and six remaining rupees (some of which were in his mouth still) were seized by the officials and forfeited. As the patient had 65 rupees to start with, and as six only remained when he was caught, he was satisfied that he had swallowed 59 of the coins. He was, however, allowed to proceed on his journey. On his arrival next day at Landi Kotal he went at once to the small Government dispensary there, told his story, and asked for a strong purgative, which was given to him. This, though it purged him violently, failed to bring away any of his lost treasure. A day or two afterwards another purgative was given, but this was as unsuccessful as the first. He then went on to Peshawar (three marches) and related his grievance. The cash had then been inside him for eight days. The only symptoms he complained of were a feeling of weight in the stomach and some loss of appetite. His grief over the loss of his money was, however, very acute, and his only thought appeared to be the recovery of his hidden treasure. He wanted Lieutenant-Colonel Dennys to cut him open at once and to restore to him his money.

A most careful examination by palpation of the abdomen when the patient lay on the table failed to reveal the smallest sign of the silver mine within him. The intestines were quite empty and the abdominal walls, being free from fat, facilitated the examination. But on making the man stand up and stoop forward and on applying intermittent pressure just above the pubes a moveable heavy mass could be felt most distinctly to come in contact with the tips of the fingers. It was, however, quite impossible to make out the size of this mass or to grasp it in any way between the fingers. It seemed just possible that the coins might have passed through the pylorus and have become lodged in a coil of some part of the small intestine, but against this were the facts that the man's bowels had at no time become obstructed and that nothing could be felt in the abdomen when the man was lying down. It was decided to feed him up for 24 hours with large quantities of solid food to be followed with a strong purgative. If this failed to remove the coins it was proposed to make an exploratory incision midway between the umbilicus and the pubes. The purgative acted very freely but not a single coin appeared in the dejecta. On the morning of the tenth day after the man had made his extraordinary and indigestible "meal" Lieutenant-Colonel Dennys decided to operate. By this time the patient's distress had become very acute. He complained of a continuous burning pain in his abdomen which was much aggravated by movement, and the only position which he could maintain for any length of time was sitting in a squatting attitude with his body thrown well forward. His pulse was rapid, but there was no rise of temperature.

On Oct. 23rd he was placed under chloroform, the skin of the abdomen having previously been carefully washed and disinfected in the usual way. An incision three inches long was made in the middle line, commencing one inch below the umbilicus, and the peritoneum was opened. On passing two fingers into the abdominal cavity no sign of the heavy mass (so distinctly felt when the man was standing up) could be discovered. Some coils of small intestine presented in the wound. With much patience the whole length of the small intestine, from the pylorus to the cæcum, was slowly and gently passed through the fingers, but nothing was found. Lieutenant-Colonel Dennys then inserted his whole hand into the peritoneal cavity and explored the entire length of the large gut from the cæcum to the sigmoid flexure of the rectum, but it was also empty. He then passed his hand up between the coils of intestine and the anterior abdominal wall to the stomach, and he could distinctly feel the whole mass of rupees lying in that organ, dragging by their weight the posterior wall far back into the abdominal cavity. It seemed obvious that the stomach could not be opened and its mine of wealth removed through the exploratory incision below the umbilicus, and it was a question whether the patient could stand the shock, prolonged anæsthesia, and further manipulation necessary for a gastrotomy operation. He had already been more than an hour under chloroform. The immediate suturing of the lower abdominal incision was imperative. This was done as rapidly as possible. The peritoneal edges were brought carefully together by eight or 10 interrupted carbolised catgut sutures. Four stout silk sutures were then passed through the skin and abdominal muscles, and, finally, some superficial fine silk sutures brought the edges of the skin neatly together. The patient was taking chloroform well, his pulse was very fair, and there was remarkably little shock. All through the operation his chest and abdomen and pelvis had been kept swathed in towels wrung out in hot carbolic lotion.

It was now decided to perform a gastrotomy and to remove the coins. The incision recommended by Mr. H. G. Howse [1] was made—i.e., an oblique one three inches long, parallel with and one inch below the lower margin of the left costal cartilages and commencing about one and a half inches from the middle line. The muscles and abdominal fasciæ were incised in the same direction as the superficial parts. Immediately the peritoneum was opened the lower border of the stomach with the omentum attached bulged into the wound. The anterior surface of the stomach was then drawn gently out, sufficiently to permit of an incision two and a half inches long being made in it. Sponges attached to strings were packed in the sides of the wound to prevent protrusion of coils of intestine, which at this period of the operation were very difficult to restrain owing to the patient making violent efforts to vomit. Mr. Allah Jowaya, assistant surgeon, held the anterior wall of the stomach firmly in his fingers, and Lieutenant-Colonel Dennys made an incision through the peritoneal and muscular coats in the long axis of the stomach. This caused very profuse bleeding from a number of small arteries and veins which were seized and tied with fine catgut before the mucous coat of the stomach was opened. When the bleeding had ceased the knife was passed through the mucous lining of the organ. Several small vessels in this coat began to bleed profusely; these were seized with Spencer Wells forceps. Lieutenant-Colonel Dennys then inserted his index and middle fingers into the stomach as far as they would go, but failed to find the coins which were lying out of reach at the back of the abdominal cavity. Owing to the extreme elasticity of the stomach wall no difficulty was found in inserting the whole of the left hand through the incision into the interior of the stomach. This procedure was preferred to groping about at the back of the viscus with a pair of forceps which might have pinched or injured the mucous membrane. Once the hand was inside there was no difficulty in gathering up the large number of coins that lay therein. The operator had, however, to insert his hand a second time before the whole of the coins could be removed. The patient began to strain and vomit again after the coins had all been extracted, and it was impossible to attempt to suture the stomach walls till the vomiting had ceased. The mucous coat showed a strong tendency to curl inwards along the incised edges, and it was with much difficulty that Lieutenant-Colonel Dennys was eventually able to bring the edges neatly into apposition with catgut sutures. When this had been done catgut Lembert's sutures were applied to the peritoneal lining, and after satisfying himself that the incision was firmly closed and that all bleeding had ceased Lieutenant-Colonel Dennys returned the protruding portion of the stomach into the abdomen. The abdominal incision was then sutured in exactly the same way as the incision below the umbilicus. The external wounds were dusted with iodoform, covered with dry antiseptic gauze, over which a thick pad of sal alembroth wool was placed, and the patient was removed to his bed and packed round with hot-water bottles. He rapidly rallied from the slight shock caused by the operation and it was extremely difficult to restrain his exuberant joy at the news that his lost treasure had been safely recovered.

On the second day after the operation his temperature rose to 99·4° F., and on the evening of the third day it was 100°, after which it never again went above normal. The lower abdominal wound healed beautifully by first intention without a drop of pus, but the upper wound did not heal so well, and owing to a small collection of pus having formed under the skin a drainage-tube had to be inserted for a few days and the patient was fed by nutrient enemata three times a day for the first six days consisting of yelks of eggs, milk, and brandy. He complained a good deal of thirst during the first two or three days, for which small lumps of ice were allowed by the mouth from time to time. On the sixth day he was allowed a small quantity of milk every two or three hours. On the eighth day he was given

[1] Dictionary of Practical Surgery, p. 590.

soup as well as milk, and on the tenth day he was promoted to milk, rice, butter, and soup.

The patient was a wild trans-border Pathan and could not be made to understand the danger of the operation which he had undergone. It was only by placing a man on duty over him night and day and keeping a watchful eye on him constantly that he could be prevented from tearing off his dressings and getting up. He admitted on the sixth day that he had stolen and drunk a pint of milk two hours after the operation which the dresser on duty had left on a small table and which was intended for administration by the rectum. But apparently no evil resulted from this rash act on his part. For the first three days it was found necessary to keep him more or less deeply under the influence of morphia by hypodermic injection owing to the impossibility of keeping him quiet otherwise.

Reproduction of a photograph of the coins recovered from the patient's stomach.

The actual coins found in his stomach were 55 Kabuli rupees (see Figure). The patient was very indignant when told that only Rs. 55 had been found inside him, for he contended that he had swallowed 59, but he afterwards admitted that he might have dropped some when he was being chased by the Amir's officials. The exact weight of these 55 Kabuli rupees was found to be 17½ ounces.

Remarks by Lieutenant-Colonel DENNYS.—The above case deserves to be recorded, not only on account of its surgical interest, but because of the extraordinary and, I believe, unique circumstances which led to the necessity for so serious an operation.

The most interesting points in connexion with this case may be summed up as follows. 1. The weight of the coins in the stomach when the patient was standing up dragged the lower portion of the stomach down almost into the pelvis, and the moveable mass which I could feel just above the pubes led me to believe that they had become lodged in some mysterious way in a coil of the small intestine without causing obstruction of the bowel. 2. The remarkable absence of any serious symptoms till the tenth day after the coins had been swallowed. 3. The extraordinary vitality of these wild frontier people and their power of resisting shock. This patient was two and a half hours under chloroform, four and a half ounces of the drug had been used through Junker's inhaler, the whole of the large and small intestines had been freely handled, many feet of gut had prolapsed through the wound when he was vomiting and were returned with no small difficulty, the stomach had been opened and my hand had been introduced into that organ, and yet at the end of the operation the patient had a very fair pulse and no shock worth mentioning. 4. The story which the patient gave of his having swallowed a pint of milk two hours after the operation when the dresser was out of the room. The stomach never after the operation showed the slightest tendency to be irritable. 5. The rapid, and almost uneventful recovery of the patient who but for the suppuration that took place in the upper wound was practically quite well 10 days after the operation. The suppuration of the upper wound I attributed to the patient having inserted his fingers under the bandage and dressings to ascertain what sort of an incision I had made. He admitted having done this. The man's great terror all the time he was under my treatment—and nothing I could say would allay his fears—was that after all I had done for him I was sure to insist on his becoming a Christian.

On the fourteenth day after operation the man was in excellent health, able to eat anything, and left the hospital for his home on the twentieth day.

Medical Societies.

HARVEIAN SOCIETY OF LONDON.

Exhibition of Cases.

A MEETING of this society was held on Dec. 19th, 1901, Dr. H. A. CALEY, Vice-President, being in the chair.

Dr. E. CAUTLEY showed a case of Infantile Scurvy Simulating Acute Epiphysitis. The patient, a female, was born on Dec. 13th, 1900, and came under observation on Dec. 2nd, 1901. She was the fourth child. Two children had died in infancy from diarrhœa. The patient was fed on cow's milk and barley-water during the first two months of life and since then on condensed milk and barley-water, with the addition of "Brighton biscuits" at the age of five months. The history of the dietary was not very trustworthy. The left arm and shoulder had been swollen for two weeks. The child was pale and ill and she cried when moved or touched. Four teeth were cut and the two upper lateral incisors showed signs of eruption. The lower gums were normal but the upper gums, round the teeth, were swollen and dusky red in colour. There was extensive swelling of the left shoulder, extending half way down the upper arm. The swelling seemed to be in front of the joint and under the periosteum of the humerus. There were moderate signs of rickets—beaded ribs and enlargement of the epiphyses, especially of the knees which were much swollen above the condyles and very tender. Exploration of the shoulder confirmed the diagnosis of scurvy, pure

blood being obtained. In the course of two days the swelling extended downwards to the elbow. The child made a satisfactory recovery under anti-scorbutic diet, without drugs, but still presented considerable thickening of the left humerus, especially of the lower half. Pyrexia was slight and irregular.—Dr. G. A. SUTHERLAND suggested the possibility of fracture.—Dr. CALEY remarked on the rarity of the condition. He thought that a series of skiagrams in such cases would prove of interest.—Dr. CAUTLEY, in reply, pointed out that at first the swelling only extended as low as the middle of the humerus and that in the course of two days it extended down to the lower epiphysis. The gradual extension downwards was not in favour of fracture and there did not appear to be any bending of the bone. He pointed out that the thickening was most marked in the lower half of the humerus by reason of absorption taking place from above downwards, the blood last effused being the last to be re-absorbed.

Mr. F. JAFFREY showed a child, aged 10 weeks, with Craniotabes. When first seen a month previously the child was suffering from congenital syphilis, and on examining the skull he was found to have craniotabes, which practically affected all the bones of the vertex, but was best marked on either side of the lambdoid suture. The child was at once weaned and put on grey powders and small doses of cod-liver oil. Mr. Jaffrey made a few remarks on the causes of craniotabes and said that the best marked cases he had seen were in subjects of congenital syphilis, though he had seen the condition not uncommon in rickets.—Dr. L. GUTHRIE pointed out that many cases improved very rapidly, even as rapidly as the one brought before the society. He believed in the association of the affection with congenital syphilis, but had seen cases in ill-developed infants independently of either congenital syphilis or rickets.—Dr. CAUTLEY thought it important to have a clear understanding as to what was meant by the term "craniotabes." He considered that there were several varieties of the affection. One he regarded as due to delayed development. The bones of the vertex were sometimes not ossified at birth and remained membranous for some weeks. This was especially the case in premature infants, but it occurred also in infants born at full time. He thought that the present case was one of delayed ossification. To a second variety he gave the name, the "parieto-occipital type." It was characterised by softening along the sutures, mainly the lambdoid suture. This, he said, was extremely common in infants brought up on condensed milk, and especially so when the infant was kept in close, badly ventilated rooms. Consequently it was found most often in the early months of the year. He ascribed it to a deficiency of the lime salts in the food. The text-book type, that in which scattered isolated spots of softening were found, he regarded as extremely rare, and he had never seen a case during life and verified post mortem. He had also seen very extensive craniotabes associated with congenital cerebral defects and with congenital hydrocephalus. He was extremely sceptical as to any etiological association with congenital syphilis, beyond the general malnutrition so often present in this disease.—Dr. W. EWART discussed the tendency to primary atrophy of the tissues in connexion with congenital syphilis, and suggested that the presence of an analogous process in other bones would be confirmatory of the view that the disease was a cause of craniotabes.—Dr. SUTHERLAND thought that the question was not yet settled and that the book type of the affection was not very rare, especially in the parieto-occipital region. He believed those cases to be due to congenital syphilis when the patches were circular with surrounding ossified bone. As to the mode of production, he thought that in some cases absorption took place from the outer surface of the bone.—Dr. CALEY suggested that in view of the possibility of a connexion with congenital syphilis it might be advisable to treat all such cases with mercurial preparations.—Mr. JAFFREY replied shortly.

LIVERPOOL MEDICAL INSTITUTION.

Exhibition of Case.—Fracture of the Fifth Metatarsal Bone.—Coxa Vara.—A Speedy Method of Removing the Pain of Piles.—Anæsthetist and Operator.

THE fifth ordinary meeting of the session of this society was held on Dec. 19th, 1901, Mr. EDGAR A. BROWNE, the President, being in the chair.

Mr. T. H. BICKERTON showed a patient with Melanotic Sarcoma of the Conjunctiva.

Mr. ROBERT JONES related: 1. Five cases of Fracture of the Fifth Metatarsal Bone due to direct violence. Although no reference to this fracture was found in the text-books he thought that the lesion was common. Radiographs of each case were shown and the fracture was found to be almost at the identical spot in each case, just below the base of the fifth metatarsal bone. The injury in each case was due to the body-weight acting upon the foot when in the position of equino-varus, and was evidently due to a cross breaking strain, the bone yielding close to the very strong ligaments which bound the metatarsal base to its surroundings. The symptoms of the fracture were pain over the site, a little swelling, no crepitus, and pain on attempting to invert the foot. 2. A series of cases of Coxa Vara, illustrating the bilateral infantile type and contrasting it with the changes in the neck usually present in extreme rickets. Mr. Jones also showed the adolescent type, which in one instance was very extreme, the rounded head being enlarged, its lowest portion reaching three-quarters of an inch below the acetabulum. The skiagram distinctly explained the very marked limitation in movement which gave the patient great pain. It presented a very rare appearance. The head of each femur was opposite to the acetabulum, and the neck formed an acute angle to the shaft. The trochanters were not thickened. Three and a half inches from the top of the trochanter the lower border of the femoral head on the left side was within a quarter of an inch of the shaft. Part of the rounded head was excurvated out of the acetabulum towards the femoral shaft. The neck was irregular and somewhat narrowed in contact with the head. The upper border of the left neck measured three and a half inches and the lower three-quarters of an inch. On the right side the head practically touched the shaft four and a half inches from the top of the trochanter. The superior border of the neck was four and a half inches in length and the lower one and a quarter inches. The same kind of irregularity was noted and the neck was very thinned towards the femoral head. The head seemed also to be levered out of the joint.—The etiology and treatment were discussed.

Dr. WILLIAM CARTER read a note on a Speedy Method of Relieving the Pain of Piles. A suddenly protruded pile which caused extreme pain, the intensity of which was not diminished by a prolonged external use of several much-praised remedies, was almost immediately and permanently relieved by a single application of 10 cubic centimetres of cocaine and 20 cubic centimetres of menthol in oil of theobroma. These were made into a cone which was rubbed over the part.

Mr. A. BURNS GEMMEL read a paper entitled "Anæsthetist and Operator," in which he stated that charges had been made against those engaged in the administration of anæsthetics of "want of knowledge and want of care," and that surgeons at the same time objected to anæsthetists claiming to be "supreme in their own place" and maintained that the surgeon should be master over the management of the anæsthetic as over every other detail of the operation. Medical men engaged in the administration of anæsthetics were divided into (1) those under direction and bound to obey orders, such as the medical student and the house surgeon; and (2) those who, recognising the great responsibility of the work, undertook it, and therefore ought not to be interfered with in any way in the performance of their duty. The duties of the anæsthetist and the operator were briefly considered, and it was pointed out that each ought to give his whole attention to his own work. In the event of a fatality each for his own work was accountable (1) to his conscience, (2) to the relatives and friends, and (3) to the coroner and jury. Friends and relatives knew that the surgeon came to operate and in the event of disaster from the anæsthetic would blame the anæsthetist. Young surgeons did not administer to the extent to which they did before the special anæsthetist came into existence and the older surgeons had ceased to administer. Seeing numerous cases merely as an operator did not give experience of anæsthesia and therefore the surgeon, old or young, had no right to dictate to the administrator. The special anæsthetist was only available for hospital patients and the richer portion of the community, consequently the greater part of this work was undertaken by the general practitioner who fully recognised his responsibility, and any attempt to deprive him of this responsibility and to lay it on the operator would tend to make him less careful and therefore less skilful. He (Mr. Gemmel) was always ready to do whatever the operator wished if it could be done

with safety, but he strongly objected to the assumption of the right to "dictate" by the operator. He who did the work must bear the responsibility, and he who bore the responsibility must be allowed to do his work without interference.—Dr. H. BRIGGS said that Mr. Gemmel might have saved himself a great deal of trouble and have avoided the useless discussion which was to follow by pointing out who was to be supreme authority or "captain of the ship" if not the operating surgeon.—Dr. WILLIAM ALEXANDER said that in the coroner's court the responsibility for the anæsthetic was distinctly thrown upon the operating surgeon. The patient selected his surgeon, left himself in his hands, and looked upon the anæsthetist as an assistant to the operator. In cases where the family medical attendant administered he had to bear the brunt of the disagreeable things said or thought by the relatives and so interposed between them and the surgeon, but even then the case was considered by them as a fatality in the practice of the operator. As a general rule the preliminary arrangements for the administration were agreed upon between the surgeon and the anæsthetist, but if there were any difference of opinion the surgeon should carry the day. In the present day patients often thought more of the danger of the anæsthetic than of the operation, and if this fear continued probably it might arrive at such a pitch that the patient would select his favourite anæsthetist first and leave him to call in the surgeon as the junior. Until that occurred the surgeon should lead the way. The surgeon would incur a grave responsibility if he asked the anæsthetist to give more anæsthetic when the latter declared that it would be dangerous to give more. In all cases the anæsthetist and the surgeon should stand shoulder-to-shoulder, bearing the responsibility together and standing up for each other.—Mr. F. T. PAUL thought that the responsibility in regard to all preparatory treatment must generally rest between the practitioner and the surgeon. The choice of the anæsthetic in certain cases must lie with the surgeon. Responsibility in fatal cases would vary with the circumstances. When the death was entirely due to the anæsthetic the anæsthetist was naturally responsible; when entirely due to the operation the surgeon was. But in Liverpool it was customary to hold the surgeon responsible to the public. Practically friction between the surgeon and the anæsthetist was unknown in Liverpool, and very little give-and-take would render any such contingency impossible.—Mr. F. W. BAILEY was convinced that operator and administrator must work together dependently and not independently; they must coöperate. In cases of doubt or gravity in the course of the administration an opinion would be courted and none was better able to give it than the operating surgeon. The operator and the anæsthetist were likened to a tandem team, each doing his share of the work dependently and to the best of his ability.—Sir W. M. BANKS said that after hearing the paper he was only the more strongly confirmed in the view that in the conducting of an operation there must be some one person in supreme command and that person must be the surgeon. The surgeon's position was compared to that of a general. A defeat was associated with the name of the general, however much it might have been caused by the fault of a subordinate. In the case of a death from an anæsthetic it was the surgeon who had to bear the brunt of the odium, because his name was generally more widely known to the public than was that of the anæsthetist. As regarded legal responsibility the Liverpool coroner had stated that he regarded the surgeon as being answerable for all that occurred during the progress of an operation. With reference to the preliminary arrangements it was important to note that the surgeon had almost invariably seen the patient before the operation and necessarily knew something about his position, while the anæsthetist (unless he were also the medical attendant) saw him for the first time. If a patient during an operation were dying from hæmorrhage the anæsthetist might logically say that that was none of his business, but if the patient were dying, say, from some vomited matter sticking in his larynx, dare the surgeon say that he was not concerned with that and refuse to do a tracheotomy? Were an equal dual control established difficulties of a very serious character might occur. So far, maintaining these opinions as he had always done, he had never had on any occasion any difference of opinion with the anæsthetist, but he felt certain that but for his own supervision he would not have seen two deaths out of some 11,000 or 12,000 cases, but more likely 20. So far from producing harmony at an operation Mr. Gemmel's views would tend to produce discord and a sense of mutual distrust between operator and anæsthetist. But, after all, the whole discussion was purely an academical one.—Mr. DAMER HARRISSON, Mr. G. G. HAMILTON, Dr. T. R. BRADSHAW, Mr. G. P. NEWBOLT, Dr. A. S. F. GRÜNBAUM, and Dr. NATHAN RAW also spoke, and Mr. GEMMEL replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.

A SPECIAL clinical meeting of this society was held on Dec. 18th, 1901.

Mr. C. W. CATHCART exhibited a patient after Drainage of Both Pleural Cavities for Double Empyema. The boy, aged 15 years, had double pneumonia in January, 1900. On about the sixteenth day 25 ounces of pus were aspirated from the left pleural cavity. On the eighteenth day Mr. Cathcart aspirated about the same quantity of pus from the right pleural sac and three hours later under local anæsthesia and a whiff of ether excised a portion of rib and drained the left side. Four days later 36 ounces of pus were aspirated from the right side and in three days—i.e., a week after draining the left side—he drained the right pleural cavity in a similar manner. The patient was out of doors with both wounds healed on March 13th. His health was now excellent, expansion on both sides being quite satisfactory. The pus contained a pure culture of the pneumococcus. The factors aiding this satisfactory result were the youth and previous good health of the patient, the exclusion by careful precautions of any organisms other than the pneumococcus, and the vigorous and frequent use of inflation by the patient. A great deal of trouble was taken in trying to get Duncan's syphon arrangement to act in keeping up negative pressure in the pleural cavity, but while it drew off the pus it failed in its primary object of producing a *vis a fronte*.

Dr. W. ALLAN JAMIESON showed: 1. A case of Lupus Vulgaris treated at the London Hospital by Finsen's Light Treatment. The patient was a man, aged 28 years. When a child he struck his chin against the edge of a table and in the bruise so produced lupus developed. He was treated by various methods by Dr. Jamieson, but in July, 1900, there was still a patch two inches long by one in vertical height of lupus persisting. He went to the London Hospital by his (Dr. Jamieson's) recommendation and was treated for five weeks there by Dr. J. H. Sequeira in September. Considerable improvement followed, but by July, 1901, the condition was as bad as before. He was then treated regularly till October, having had 55 exposures in all. The whole surface was now smooth and almost normal and so far no nodules had reappeared. 2. A case of Rodent Ulcer treated by the X Rays and apparently cured. The patient was a healthy country woman, aged 41 years. Three years since a small papule appeared on the left temple; it was itchy and was scratched. It gradually extended, became crusted, and a second patch formed alongside. When seen in September, 1901, there were two continuous patches of rodent ulcer, implicating the skin alone, and each rather larger than a florin. They were granular and crusted and had the typical rolled edge. For three weeks they were treated by the x rays alone, but the patches were then thoroughly scraped and on the next day they were cauterised with chromic acid fused on a probe to a bead. The surface was then dressed with Beiersdorf's zinc ichthyol salve muslin till it was healed and then the exposures to the rays were resumed. At the same time the margins were gently scraped twice and on the latter occasion they were also touched with nitric acid. Under the rays the disease melted away, so that in the middle of December there was a soft healthy normal integument over all the previously diseased areas. She had a 10-minutes' exposure four times a week. There could be no question here of the curative effect of the x rays.

Mr. ALEXANDER MILES showed: 1. A patient after operation (Gastro-enterostomy) for Severe Hæmatemesis. The patient was a woman, aged 42 years, who on Sept. 8th last was suddenly seized with severe hæmatemesis. Four years previously she had been treated by Dr. Robert Stewart for dyspepsia, and the stomach, which was dilated, had been frequently washed out. She had never vomited blood nor did she exhibit any of the ordinary signs of gastric ulcer.

After this attack she regained her normal health and remained well until Sept. 8th, when the hæmatemesis occurred. The usual methods of treatment were unsuccessful in arresting the bleeding which continued for three days. As the patient's life was endangered an operation was advised and it was carried out in the Royal Infirmary on Sept. 10th. On opening the abdomen by a mesial incision and examining the stomach a deeply indurated ulcer of about the size of a five-shilling piece was found close to the pylorus. It extended to the lesser curvature and fully two-thirds of the way to the greater curvature. It was therefore impossible to invaginate it without great risk of occluding the pyloric orifice, and the condition of the patient did not justify an attempt being made to excise the ulcer. It was therefore decided to perform a posterior gastro-enterostomy. After opening the stomach its interior was explored with the finger. No definite bleeding point was recognised in the ulcer. The communication between the stomach and the intestine was then completed with silk stitches. Before closing the abdomen about two pints of saline fluid were introduced into the peritoneum. During the first 24 hours after operation rectal injections of saline fluid were given every four hours and frequent nutrient enemata, which were all retained. The foot of the bed was raised. Although she continued to vomit bile-stained mucus at intervals there was no further loss of blood. Flatus was expelled in the evening. On the 12th the patient was better, though there was still sickness occasionally, but this became less frequent when the foot of the bed was lowered. On raising the head of the bed vomiting ceased entirely. On the 13th beef-tea and peptonised milk were given per os. She made an uninterrupted recovery, being up on the twenty-first day and she left the hospital on the twenty-ninth day. Since then she has remained well. 2. A patient after operation for Intestinal Obstruction due to Tuberculous Peritonitis, with subsequent development of tuberculous pleurisy which was treated by drainage. The boy, aged 16 years, was admitted to Leith Hospital on August 19th, 1898, suffering from intestinal obstruction. Three weeks previously he had begun to complain of sickness and vomiting and irregular constipation and these symptoms lasted for about a week and then passed off. Three days before admission he was suddenly seized with pain in the abdomen. The pain was not severe and was not localised. He vomited everything that he took. The bowels did not act and no flatus was passed. On admission the abdominal walls were retracted and did not move with respiration. Peristalsis was visible in the middle of the abdomen and in both flanks and suggested movements of both large and small intestines. No definite swelling could be palpated. In the right iliac region and in the line of the descending colon marked gurgling was elicited. The abdomen was uniformly tender all over. The rectum was "empty and "ballooned."" Several enemata were administered without effect. At 8.30 P.M. the abdomen was opened in the middle line below the umbilicus. The small intestine when exposed was distended, deeply congested, and thickly studded with miliary tubercles, as was also the parietal peritoneum. A fibrous band was found to constrict the small intestine a little to the right of the umbilicus. The collapsed bowel beyond the constriction was lying at right angles to the distended bowel and the two loops were united by recent adhesions for about an inch. After dividing the band and separating the adhesions the intestinal contents instantly passed into the collapsed bowel. The whole of the peritoneum was covered with tuberculous nodules but there were no further adhesions. A Keith's tube was introduced into the pelvis and the abdomen was closed. For the next five weeks the patient continued to improve, and then the temperature began to rise and the boy complained of pain in the epigastrium and in the right side. These pains became more severe and "catching" and a loud, rubbing, creaking friction sound was heard over the front of the right side. The right base behind was absolutely dull. On Oct. 11th (18 days after the temperature began to rise) a portion of the eighth rib was excised in the posterior axillary line. On opening the pleural sac numerous recent adhesions were found between the chest wall and the lung and clear fluid with some flakes escaped. The pleura was closed with catgut sutures and the external wound was closed without drainage. The physical signs gradually cleared up and the patient slowly recovered. During the last three years he had enjoyed excellent health and had done his ordinary work as well as taking part in athletics. 3. A patient after Excision of the Rectum by Kraske's Method. A labourer, aged 52 years, was admitted to Leith Hospital on Sept. 7th, 1901, complaining of increasing constipation during the preceding six months; his motions were tape-like and streaked with blood. He complained of feeling a lump permanently in the rectum with constant tenesmus. Griping pains across the lower part of the abdomen were present. There was also difficulty in passing urine. On examination per rectum a tight stricture within one and a half inches of the anus was found which admitted only the tip of the finger. The edges were hard and ulcerated. The rectum was moveable except anteriorly, where it appeared to be attached to the prostate gland. On Sept. 12th a vertical incision was made from the middle of the sacrum to the anus. The coccyx and lower part of the sacrum were removed. The rectum was exposed and isolated, clamped above the tumour, and cut across. The peritoneum was opened in clearing the bowel and was stitched with silk. The rectum was dissected out down to the anus. It was found to be adherent to the prostate, but the disease did not apparently infiltrate that gland. The cut end of the bowel was stitched to the upper angle of the wound and the rest of the wound was loosely sutured and iodoform gauze packing was introduced between the sutures. The patient made an excellent recovery. He had not complete control of the bowels, but could keep himself comfortable and clean so long as the motions were solid and he was aware when the bowels were about to move.

Dr. W. G. SYM exhibited a patient, both of whose Lacrymal Sacs he had excised. This had been done for two reasons—viz., on account of impervious stricture with chronic abscess of the sac and long-standing fistula, a condition which gave the patient much distress; and on account also of the fact that in one eye he had a cataract ripe for extraction. Dr. Sym briefly pointed out the dangers of extraction in presence of a lacrymal stricture and showed how by means of removal of the sac these had been avoided and a good result secured. At the time of the first operation a cultivation experiment revealed abundance of pyogenic organisms and the extraction had therefore been postponed for a month; at the end of that time another cultivation from the conjunctiva proved sterile and the extraction was then successfully carried out. The cosmetic result was excellent and the patient was entirely freed from the troublesome lacrymation and discharge.

Mr. HAROLD J. STILES exhibited: 1. A boy, aged six and a half years, after operation for Recurrent Tubercle and Stricture following amputation of the penis for tuberculous disease of the glans. In July last the patient had a deeply-excavated ulceration of the glans penis involving the meatus. The inguinal glands were only slightly enlarged. Local treatment being ineffectual the penis was amputated. Three weeks before the boy returned to hospital with an aggravated stricture, the result of the recurrence of the tubercle in the stump. The tuberculous and cicatricial tissues around the stump were removed, the scrotum was split, and the penis was re-amputated at its root. The corpus spongiosum was dissected back as far as the perineum and the part in front of the bulb was removed. The bulb itself was then divided longitudinally on the ventral surface and the edges were united to the posterior part of the perineal wound about one and a half inches in front of the anus. The remainder of the wound was closed and infiltration of urine was prevented by the introduction of a catheter into the bladder and the use of Mr. Cathcart's "Sprengel pump." Mr. Stiles said that it would be desirable to remove the testicles, but thought that this should not be done until a few years after puberty. As regards the cause of the condition it was mentioned that the patient had been circumcised, but that the glans and prepuce did not become diseased until three years later. 2. A child, aged 14 months, after operation for Congenital Stricture of the Anus. The stricture admitted only a No. 6 catheter. The usual operation was done—viz., the removal of skin around the orifice along with separation of the mucous membrane and the suturing of it to the edges of the skin wound. The interest of the case lay in the fact that five plum-stones and one shirt-button were removed from the rectum. 3. Four cases showing the results of treatment of Congenital Wry-neck by the "open operation." The patients had all been operated upon from 12 to 18 months previously. In each a very satisfactory result had been obtained. Mr. Stiles drew attention to the importance of dividing all the clavicular as well as the sternal fibres of the muscle, in addition to all the fascial bands in front of the depressor muscles of the hyoid bone and the outer part of the

internal jugular vein. He preferred a transverse to a vertical incision, as the former gave better access to the deeper structures and the resulting cicatrix was less evident. In his opinion it was quite necessary to excise the lower two-thirds of the sterno-mastoid muscle as recommended by Mikulicz. If the simple open division were done thoroughly a perfectly satisfactory result was obtained without the subsequent use of any apparatus or gymnastic exercises.

Mr. ALEXIS THOMSON showed a female patient, aged 52 years, the Pyloric Portion of whose Stomach he had Removed for Cancer three and a half years ago. The patient had suffered from gastric symptoms for nine months. There was a freely moveable tumour above and to the right of the umbilicus. There was no free hydrochloric acid in the gastric contents. The pyloric portion of the stomach was excised by Kocker's method. The tumour, as large as a fist, was a columnar epithelioma projecting into the interior of the stomach but causing no obstruction. Enlarged glands were removed from both curvatures, but they were found to be free from cancerous infection. The patient had since enjoyed perfect health.

Mr. F. M. CAIRD showed a patient after operation for High Shoulder due to an Osseous Plate which had developed between the scapulæ and the vertebral spines.

The following specimens were shown:—

Mr. MILES: (1) A Rectum Excised for Malignant Disease by Kraske's operation; (2) specimens of Preputial Calculi; and (3) specimens illustrating Fracture-dislocation of the Spine.

Mr. CAIRD: (1) Specimens and photographs from a case operated upon for High Shoulder; and (2) Carcinoma of the Transverse Colon from a case of Resection and Primary Suture.

ROYAL ACADEMY OF MEDICINE IN IRELAND.—A meeting of the Medical Section of this society was held on Dec. 13th, 1901. In the absence of the President (Sir C. Nixon) the chair was taken by Dr. Walter Smith.—Dr. J. M. Finny exhibited a girl, aged 22 years, with all the typical symptoms of Disseminated Sclerosis. Four years ago, at the age of 18 years, she became completely paralysed as to motion in the arms and legs, with loss of control over the bladder and rectum, and with the formation of large bedsores on the sacrum and the nates. No cause could be found for her illness. She was a patient for 15 months in county Roscommon Infirmary under the care of Mr. E. T. Blakeney, and she left that institution so far recovered as to be in much the same state as that which she now presented. Having called attention to the rarity and peculiarity of this invasion of the disease, and having commented on the variability of its course and progress and the difficulties which such variability produced in the diagnosis of disseminated sclerosis in its earlier stage, Dr. Finny pointed out the signs which were typically demonstrable on the patient, taking them *seriatim* and in the order of their prominence. One of these was a notable complacency with her sad lot and a cheerful contentment with her surroundings, a feature laid stress on by Gowers as being very characteristic of disseminated sclerosis, more commonly met with in females. Mention was then made of the following organic nervous diseases which more or less closely might simulate one or more of the salient features of disseminated sclerosis: paralysis agitans, general paralysis, mercurial tremors, syphilitic diseases, ataxic paraplegia, intracranial tumours, especially of the cerebellum, and transverse myelitis, and although the subject of diagnosis was not entered on or discussed a warning was thrown out as to the risk of confounding it with hysteria, not when all the typical symptoms were present, as in Dr. Finny's case, but when they were ill-defined and varied in extent and gravity under the influence of time.—Dr. George J. Peacocke read a paper on Hemichorea and Parotitis Complicating a case of Diabetes. The patient, a man, aged 64 years, was admitted to the Adelaide Hospital on April 29th, 1901, suffering from diabetes. He presented the usual symptoms—loss of flesh, great thirst, and polyuria. The quantity of urine passed in the 24 hours varied from three to five pints, and quantitative analyses gave 2·7 ounces of sugar on May 2nd and somewhat smaller quantities on subsequent occasions. He continued very drowsy throughout his illness; at times the condition almost approached coma, and he died on May 26th, just four weeks after admission. On May 4th he developed left-sided hemichorea which resisted treatment with hyoscine, bromides, and chloral. Arsenic in 10-minim doses was given as were 20 grains of trional at night. Improvement rapidly followed and all the symptoms of chorea disappeared on May 13th. The second complication, parotitis, first made its appearance on May 11th. At first it gave rise to little trouble, but on May 16th there was some elevation of temperature and the parotid gland became painful and tender. The fever continued until the patient's death, but it never reached a higher point than 101·6° F. The cause of the parotitis was quite obscure, and though a similar condition had been described in a variety of diseases and injuries of the abdominal organs so far its occurrence in the course of diabetes had not been recorded.—Dr. Smith, Mr. H. G. Croly, and Dr. A. R. Parsons discussed the paper.—Dr. W. R. Dawson read a paper on Glycosuria and Insanity (a Clinical Study). Cases of glycosuria associated with insanity were of two classes—those in which the insanity was secondary and those in which the glycosuria was secondary, the first being rare. He had had one case of the first class under his care, that of a woman who had suffered for many years from polyuria and recurrent melancholia, with general delicacy, the melancholia being of the type described as characteristic of diabetic insanity. She had been admitted for a severe attack, and sugar being present in the urine she was put on diabetic diet. The sugar and the mental symptoms disappeared and she was discharged recovered in about two months. The diet had since been persisted in and she had remained unusually well for about a year. Other cases were then briefly described which probably belonged to the second class.—A discussion followed. Dr. Smith, Mr. R. Leeper, and Dr. Hayes took part and Dr. Dawson replied.—Mr. J. Burgess read notes of an uncommon case of Sudden Death. He said: The case which I bring forward is one of sudden death from what I take to be a combination of circumstances which are uncommon. The specimen before you was taken from the body of a poorly nourished man, aged 35 years, a labourer out of employment. From the evidence at the inquest I learned that he did not complain of being unwell until the fatal seizure came on. I presume that whilst seeking for employment he was noticed by some people to fall suddenly with his shoulder resting against a wall and then to drop to the ground. The people did what they could to revive him, but when the ambulance arrived he was evidently dead and they took him to the morgue instead of to one of the hospitals. The body was, I remarked before, not well nourished, but it was not emaciated; both lungs were emphysematous with a large amount of muco-pus in the bronchial system, but nowhere were cicatrices exhibited nor was there consolidation. The pericardium was distended, on opening which somewhat over a pint of fluid blood and clots exuded. Both ventricles, especially the surfaces of the right ventricle, were covered by recent lymph, which at the time could be easily detected, and presented a fluffy appearance. Before removing the heart I searched assiduously for the source of the hæmorrhage but without result, nor could I find it afterwards. On opening the heart the valves were found to be in no way affected, the entire ante-wall of the right ventricle was principally composed of fat, and there was almost a total absence of muscular fibre; this was very striking on comparing it with the left ventricle, which was fairly normal. Both coronary arteries were permeable. In the right ventricle was a clot which formed at the time of death. Both auricles presented nothing abnormal. The aorta showed considerable evidence of atheroma. Although I have not been able to demonstrate the source of the hæmorrhage I think that the cause of death is obvious. During an attack of acute pericarditis, associated with a previously diseased heart, a bleeding occurred sufficient although small in amount to cause by its presence fatal paralysis. I find on consulting the literature on the subject that hæmo-pericardium is produced by two sets of causes, the most common being the rupture of the left ventricle of an aneurysm or of some vessel into its sac. The second is that in which during the course of pericarditis of cancerous or tuberculous origin a bloody serum is exuded into the sac, and a similar effusion occurs also in some cases of scurvy and purpura. In my case there was no trace of malignant disease or of tuberculosis, but it owes its interest as one of acute pericarditis with the very uncommon complication of a true hæmorrhage, probably from capillary vessels, which, although comparatively small, was sufficient on account of the diseased condition of the myocardium to

cause sudden death.—Dr. Finny did not agree with Mr. Burgess's opinion that the change in the ventricle was due to fat. He suggested a new growth of some description as being more probable.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.—A meeting of this society was held on Dec. 18th, 1901, Dr. J. G. Douglas Kerr (Bath), the President, being in the chair.—Dr. S. D. Clippingdale read a paper on the Clay and Gravel Soils of London and the Relative Advantages of Dwelling upon them. The paper was illustrated by a geological map of London and by diagrams of sections drawn through the Thames basin, showing that the soil nearest the river bed was invariably gravel, while the districts farther away were clay. Tables were also shown giving the height, elevation, soil, density of population, and death-rate of every sanitary area of London. These statistics, Dr. Clippingdale contended, proved that living on clay was not so injurious to health as was commonly supposed, and that as all the hills around London were of clay they resembled a clay table basin which, if turned upside down, became immediately drained of water poured upon it, whereas the greater mortality was clearly shown by the tables to be connected with the low-lying and level districts where the soil was generally gravel. Density of population and the class and occupation of the inhabitants were also acknowledged by Dr. Clippingdale as important factors in determining the death-rate, but these did not, in his opinion, fully account for the marked difference between the mortality upon clay hills and that upon gravel levels. The omission from the Registrar-General's returns of statistics with regard to rheumatism was regretted, as this disease was well known to be influenced by soil. In conclusion, Dr. Clippingdale pointed out that the important thing was to live upon a hill; if a hill could be found of gravel all the better, but there were no hills of gravel in or near London, and the statistics which he had brought forward proved, he contended, that the healthiest places near London were those on the clay hills surrounding it.—Dr. J. Groves (Carisbrooke) said that he concluded that Dr. Clippingdale did not intend that the conclusions drawn from the circumstances of London should be applied outside it. The experiences of a wider district in which various formations were at the surface would scarcely support such conclusions. In rheumatoid affections it was well known that the conditions ameliorated when the subjects of them removed from a clay soil to a gravel or other porous soil. His experience of London taught him that the overcrowded conditions which obtained in certain districts were responsible for high mortality rather than the nature of the soil, and the wonder was that the mortality was not greater.—Dr. A. P. Luff congratulated Dr. Clippingdale on the courage which he had shown in coming forward as a champion of clay soil, but he ventured to differ from the deductions which had been drawn from the figures given in the paper.—Dr. Harry Campbell drew attention to the fact that a well-drained gravel soil might be in some respects unhealthy—that anæmia was especially common in the neighbourhood of Aldershot. In comparing the healthiness of the gravel and clay districts of London it must not be forgotten how extraordinarily well drained London was as a whole, and the fact that wide areas were rendered impermeable to rain by being covered with houses and pavements. The low mortality of the clay eminences might be partly accounted for by the fact that they were sought after by the more wealthy residents who could command the best sanitary conditions. He did not, however, doubt that on the whole gravel was more healthy than clay.—Dr. R. Fortescue Fox held that a clear case had been made out for the salubrity of clay soils if well situated and well-drained.—Dr. W. Ewart was able to agree with almost all the views which had been expressed. Their apparent divergence was explained away by the fact that the generally accepted statement as to climate would not be applied to London which was exceptional, not only as a town, but also as a geographical and as a geological district. Its own clay area, besides being artificially protected by impermeable layers, was admirably drained by its water courses and by its sewers and was everywhere on the slope, and, moreover, was limited north and south by elevated ridges of a different formation. Clay regions had a damp and cold atmosphere because they usually consisted of extensive plateaux without natural drainage. On the other hand, the London gravel, instead of being a highly aerated soil conducive to warmth and dryness of air, was in its lower strata soaking in water and therefore less healthy than it was generally supposed to be.—Dr. E. Solly (Harrogate) said that the healthiness of a soil could be discussed under two heads—the physical effects, i.e., coldness, humidity, &c., and the zymotic effects due to contamination with sewage. Further statistics were needed, but as regarded the latter point he would far sooner live in a house on a clay soil in a town, because sewage leakage tended to follow the course of the sewers instead of permeating the soil.—The experiences of Mr. G. H. Thompson (Buxton) coincided with those of Dr. Luff (excluding London), that chronic rheumatic diseases were more prevalent on clay soil than they were on other soils, and patients had frequently told him that they had derived benefit by removing from clay to non-clay districts. Intercurrent diseases might account for the non-appearance of chronic rheumatic diseases as a cause of death in the returns of the Registrar-General.—Other speakers followed and the discussion was closed by a few remarks from the President.

GLASGOW SOUTHERN MEDICAL SOCIETY.—A meeting of this society was held on Dec. 19th, 1901, Dr. John Stewart, the President, being in the chair.—The meeting, which was a special one, was called for the express purpose of considering what action, if any, should be taken regarding the relation of the General Medical Council to the medical profession. In introducing the discussion the President said: The medical profession in this part of the country has been brought more closely into contact with the General Medical Council during the last 12 months than at any period of recorded time. The idea we fondly cherished of the General Medical Council that it was a body having the interests of the medical practitioners at heart anxious to listen to grievances has but proved a pleasant dream from which we have had a rude awakening. You are aware that the medical practitioners of Glasgow and the west of Scotland had occasion to approach the General Medical Council, and sent to London a deputation in support of a memorial. At the same time and on the same subject the Glasgow Southern Medical Society forwarded to the Council a petition signed by the office-bearers. It is now a matter of history that the memorial was not accepted; the deputation was not received, while the petition from our society was not even acknowledged. We are therefore forced to the conclusion that the General Medical Council as presently constituted is not in sympathy with our work as general practitioners. Further, our attention has been particularly drawn to the manner in which the General Medical Council discharges its judicial functions. The only general power it possesses is in connexion with a charge of infamous conduct in a professional respect, and in this capacity many have come to regard the Council with absolute distrust. We have seen it in the exercise of its functions frame an indictment the terms of which betrayed either complete ignorance of the law or a deliberate ignoring of the law. We have known it issue an indictment which made a grave charge of illegal conduct against the accused—viz., that of employing another to break the law—and we have seen it sustain the charge on facts which to the unbiased mind did not bear out the indictment, much less substantiate a charge of infamous conduct. We note that though in support of the charge of infamous conduct the Council furnishes particulars in an indictment to which it gives publicity, yet in considering the charge it ignores particulars and makes a test by facts which have little or no relation to the terms of the indictment. We believe, therefore, that the General Medical Council is not an impartial judge and that in questions which ought to be decided by legal methods it is influenced by sentiment and prejudice. Need we wonder, then, that many accused parties, though conscious of their innocence, should feel that for their own safety it is better to appear before the tribunal with "bated breath and whispering humbleness" and express regret. It is our duty, however, to protest strongly against the action of the Council in so humiliating men of staunch integrity and of holding up the profession in this part of the country to public ridicule and scorn. It is unanimously held that the General Medical Council is not a legislative body—that it has no power to make or alter laws; but a moment's consideration will show that the unrestricted power it possesses, of which it takes the fullest advantage, of defining what is infamous conduct makes it a very powerful legislative body indeed. It has only to say, Do this or the Council will adjudge you guilty of infamous conduct; or Don't do that, or

by the power committed to the Council under such and such sections of the Medical Acts the Council will erase your name from the Medical Register. Surely no body of men should possess such absolute power, certainly not any body whose judicial fair-mindedness is open to doubt. From these considerations, from the unsympathetic attitude of the Council to the medical profession, from the prejudiced administration of its judicial functions, from its arrogant assumption of legislative powers, from its apparent laxity in regard to its administrative duties and from other considerations—from sins of omission and from sins of commission—the medical profession has ceased to repose that confidence in the General Medical Council which as the governing body of medical education and registration it ought to command. Reform is needed and we believe that in the first place reformation should be in the direction of (1) a great increase in the number of direct representatives, and (2) a complete withdrawal of the penal powers of the Council, or at least a more restricted definition of the same. The present time, the President believed, was opportune to petition Parliament. It would not be difficult, he thought, to show that the profession ought to be more liberally represented on the Council, and many believed that it should be asked that the erasure from the Medical Register should be relegated to the courts of law. The President then invited discussion on the subject in which many took part, and at the close the following proposition was moved and adopted, viz. :—

That the Council of the Glasgow Southern Medical Society be empowered to take steps to draw up a memorial for presentation to the Members of Parliament and to Parliament itself seeking support for an increase in the direct representation to, and restriction of the penal powers of, the General Medical Council, and that other medical societies be invited to coöperate.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Dec. 19th, 1901, Dr. C. H. Willey, the President, being in the chair.—The following specimens were exhibited (*a*, microscopical; *b*, macroscopical):—Mr. R. Favell: (1) A series of Uterine Fibromyomata (*b*); (2) Diseases of Fallopian Tubes (*b*); and (3) a Parovarian Cyst (*b*).—Dr. T. H. Morton: (1) Blood Cysts from the Uterus (*b*); (2) Tubal Ectopic Gestation (*b*); (3) an Intestine Strangulated by a Band (*b*); and (4) an Intestine Strangulated by a Loop (*b*).—Mr. R. J. Pye-Smith: A Pylorus Excised for Malignant Disease (*a* and *b*).—Mr. E. J. Scorah: (1) Sarcoma of the Small Intestine (*a*); (2) Carcinoma of the Small Intestine (*a*); and (3) Cirrhotic Kidneys (*b*).—Mr. S. Snell: (1) Encapsuled Sarcoma of the Orbit (*a* and *b*); (2) Epithelioma of the Cornea (*b*); (3) Tubercle of the Iris (*a*); (4) Endothelioma of the Orbit (*a*); (5) Choroidal Sarcoma recurring in the Orbit—(i.) a section of the eyeball, (ii.) a growth from the orbit, (iii.) the bony walls of the orbit exfoliated after the application of chloride of zinc, and (iv.) microscopical sections of tumours; and (6) a collection (about 70) of Mounted Sections of Eyes.—Dr. G. Wilkinson: Hydatid of the Lower End of the Femur (*b*).—Dr. A. J. Hall: (1) Typhoid Ulcers (*b*); (2) Mucous Casts of the Intestine (*b*); (3) Brain—thrombotic softening (*b*); (4) Aortic Aneurysm (*b*); (5) Fatty Degeneration of the Heart (*a*); (6) Acute Yellow Atrophy of the Liver (*a*); (7) Fatty Degeneration of the Kidney (*a*); and (8) Amyloid Degeneration of the Heart (*a*).—Specimens illustrating various features of Tuberculosis were exhibited by Dr. J. Robertson, Dr. C. M. Hector, and Dr. Hall, including Cultures of Bacillus Tuberculosis, Streptothrix, and Actinomyces; microscopical specimens of Tuberculosis of the Udder of the Cow, of the Lung of the Horse, of the Glands of the Guinea-pig, and of various Human Organs; Lupus Nodules, Urine, &c.; specimens illustrating Tuberculosis in Animals; and a large collection of specimens illustrating Tuberculosis of different Organs, both Human and Animal.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Dec. 18th, 1901, Mr. E. C. Kingdon, the President, being in the chair.—Dr. H. Handford read notes on a case of Right Hemiplegia from Thrombosis of the Cerebral Veins occurring in a young woman, aged 25 years, some three weeks after removal of double pyosalpinx; death occurred three days after first onset. At the necropsy a firm old grey adherent clot was found in the superior longitudinal sinus and hard black clots were found in the left cerebral veins. There were no clots in the arteries, hæmorrhage in the substance of the brain, or excess of fluid in the subarachnoid space. The facts of the walls of the superior longitudinal sinus being so fixed that alteration of its calibre did not occur as in other veins, that the veins took an ascending course, and that the blood-current in them was exceedingly slow all favoured the formation of clot in that position, and when in addition the cerebral veins were involved the condition was usually fatal.—The President, Dr. W. B. Ransom, and Dr. A. W. C. Peskett discussed the subject, and Dr. Handford replied.—Dr. A. Fulton read a short paper on the Treatment of Epidemic Diarrhœa in Infants. He advocated clearing out the contents of the alimentary tract, withholding all food for a time, then giving small feeds of white of egg beat up with an equal amount of water till convalescence. Minute doses of tincture of opium and acetate of lead were useful in certain cases, and as preventive treatment the sterilisation of milk during an epidemic.—Dr. W. B. Ransom read a paper entitled, "Should Milk be Boiled?" first pointing out how easily milk became a vehicle of disease; even when coming from a healthy cow it was frequently much contaminated by pollution from the milker's hands, by excreta from the byre in which the cow was milked, and by dust of all kinds which settled on the surface of exposed milk, which must occur during its transit and when left for hours in some possibly insanitary place before its final consumption. It had also been frequently shown that many zymotic diseases were traceable to the use of unboiled milk, that 10 minutes' boiling would destroy hurtful bacilli, that the nutritional value of boiled milk was equal to that of raw milk, and that its rate of digestion was practically the same. Dr. Ransom further advocated the municipal distribution of sterilised milk during epidemic diarrhœa.—The papers of Dr. Fulton and Dr. Ransom were discussed together, as running on similar lines, by the President, Dr. Handford, Dr. W. Hunter, Dr. Peskett, and Mr. R. G. Hogarth.—Dr. Fulton and Dr. Ransom replied.

WINDSOR AND DISTRICT MEDICAL SOCIETY.—The third meeting of the session of this society was held on Dec. 18th, 1901, Surgeon-General H. Cayley (retired) being in the chair.—Mr. J. W. Gooch showed a skiagram of a case of Injury to the Elbow-joint, occurring in a lad, aged 16 years. The internal condyle was seen to be broken off.—Dr. E. B. Hulbert showed (1) a specimen of Cancer of the Summit of the Bladder adherent to the Anterior Abdominal Wall from a man, aged 70 years (there were secondary deposits in the liver); and (2) a specimen of Extensive Cancer of the Ileo-cæcal Valve from a man, aged 78 years.—Captain F. S. Brereton, R.A.M.C., showed (1) a patient with a Large Swelling over the Manubrium Sterni which had improved greatly under anti-syphilitic treatment (there was a similar swelling on the tibia); and (2) a case of Morbus Cordis occurring in a young soldier. The disease was considered to be aortic.—Captain J. H. Power, R.A.M.C., showed a patient with Stiffness of the Arm and Shoulder-joint following an injury. There was some wasting of the muscles and there was a suspicion that the brachial plexus had been injured.—Mr. H. G. Plimmer delivered an address entitled "The Present State of the Cancer Question." The lecture commenced with a brief but concise history of the growth of the parasitic theory of cancer from the discussion at the Academy of Medicine at Lyons in 1773 to the recent work of Ruffer, Sanfelice, and others. The similarity of the conditions under which cancer occurred with those appertaining to various infective diseases was pointed out. Further, after a detailed description of the bodies so often found included within the cancer cells and a reference to the frequency with which they were found, the results obtained by cultivation of the organism and its introduction into the bodies of living animals were described. Besides the actual preparations which were shown under the microscope, lantern slides were thrown upon the screen, showing, first, the typical structure of carcinoma, and, secondly, the actual cell inclusions. Slides showing the organism obtained by cultivation were also shown, and, finally, endothelial growths from the lungs of a guinea-pig caused by the introduction of the organism into the animal's body. A single section of a cornea similarly treated exhibiting true epithelial proliferation was also shown.—Surgeon-General Cayley having proposed a vote of thanks to Mr. Plimmer for his very interesting and instructive address, it was seconded by Dr. G. H. Sealy, and being put to the meeting was carried unanimously.

Reviews and Notices of Books.

Atlas and Epitome of Special Pathologic Histology. By Docent Dr. HERMANN DÜRCK, Assistant in the Pathological Institute, Prosector to the Municipal Hospital, Munich. Vol. II. Authorised Translation from the German. Edited by LUDVIG HEKTOEN, M.D., Professor of Pathology, Rush Medical College, Chicago. London and Philadelphia: W. B. Saunders and Co. 1901. Crown 8vo. Pp. 198. With 122 Coloured Illustrations. Price 13s.

THIS volume completes Dr. Dürck's Atlas of Special Pathologic Histology, the first volume of which we reviewed two years ago.[1] The work forms one of a series of medical hand atlases which are in course of publication on an international coöperative system. Arrangements have been made to publish these books in no fewer than 13 languages and by dividing the heavy cost of production among a number of publishers it has been possible to issue them at a comparatively low price. The success of the venture would seem to be assured, for the American publisher anticipates a sale of over 100,000 copies of the 14 volumes which have already appeared.

This volume contains 122 plates which illustrate in colours the morbid histology of diseases affecting the liver, pancreas, urinary organs, central nervous system, skeletal muscles, skin, bones, joints, and the male and female sexual organs. A consideration of the diseases of the central nervous system and of those of the organs of special sense have been omitted as they are discussed in other atlases, while the subject of genuine neoplasms is reserved for a volume on General Pathological Histology. The illustrations, beautifully executed lithographs, maintain on the whole a high standard of excellence. The author tells us that in portraying the various morbid processes he has avoided the use of combination pictures—i.e., those compounded of several microscopic views—and that each plate represents as far as possible what may actually be seen under the microscope. It is open to argument whether for beginners, for whom this book is intended, this is the best course to pursue. The description in the text is based on the appearance of several specimens and therefore often indicates more than can really be seen in the illustrations, and particularly is this apt to be the case here where the latter represent mainly examinations under a low power of the microscope. The text, which is a condensed epitome of histology, has, we think, lost some of its value in the process of compression, for it makes stiff reading for anyone who is not familiar with the subject. As a matter of fact, this atlas will appeal chiefly to those who wish to have by them a well-illustrated work with which to refresh their recollections of the histological changes produced by various diseases. To such we can recommend it highly.

Diseases of the liver and kidneys have been studied in some detail, more than half of the book being devoted to these two chapters. The illustrations of amyloid liver exaggerate the indefiniteness characteristic of the affection unnecessarily, and the one on diffuse hypertrophic cirrhosis is not very instructive, otherwise the student will find the plates in this section excellent. To the brain and spinal cord 22 plates have been allotted, to diseases of the skin 10, of the pancreas two, of the bones four, and of the joints two. The male sexual organs have six illustrations, while the uterus, ovaries, and tubes have the same number. These, we think, might have been omitted, as affections of the female sexual organs are treated of in a special atlas and the attention which they receive here is too slight to be of much profit to the reader.

While we cannot go so far as the American publisher and say that the book offers "a ready and satisfactory substitute for clinical observation," we have no doubt that those who are unable to continue their pathological studies practically will find this atlas extremely useful.

[1] THE LANCET, Dec. 30th, 1899, p. 1817.

Die Malaria; Studien eines Zoologen. (*Malaria; Studies by a Zoologist.*) Von BATTISTA GRASSI. Second and enlarged edition. Jena: Gustav Fischer. 1902. 4to, pp. 250, with eight Plates and 15 Figures in the Text. Price 20 marks.

GREAT advances have been made of recent years in our knowledge of malaria and Professor Grassi has played no small part in them. The importance of the subject is made clear by the fact mentioned by the author in his preface that malaria prevails in two-thirds of Italy and that several millions of its inhabitants suffer yearly from it.

This book gives a most interesting account of the relationship of the malarial parasite to the mosquito (anopheles), but unfortunately it is marred by a keen discussion on the priority question. This becomes more regrettable when on p. 35 an attempt is apparently made to minimise the researches of one of the pioneer workers in the subject. No further observation will be made here on this priority question as it turns the attention of the reader from the main object of Professor Grassi's excellent work.

After an historical survey of the malarial parasite in Chapter I. the author proceeds to give in Chapter II. an account of blood-sucking insects. He identifies with precision the various forms of anopheles which carry the malarial infections. Many interesting questions are here discussed which have an important bearing on malaria, such as the habits of the anopheles and the distances to which they travel. In Chapter III. Professor Grassi describes the modes of catching and cultivating mosquitoes. Chapter IV. is given up to anatomical considerations concerning anopheles, their eggs and larvæ, and anopheles claviger, pseudo-pictus, and superpictus receive a short description. The mode of life of these insects is discussed in Chapter V. In Chapter VI. Professor Grassi gives an account of the experiments by which he arrived at the conclusion that malaria is transmitted by anopheles (and especially in Italy by anopheles claviger) and not by culex and other insects. He maintains that the parasite found in birds has nothing to do with the malarial parasite of man, and he quotes from the various authorities who uphold the same view. The development of the malarial parasite in the body of the anopheles, including the arrival of the sporozoits in the salivary glands, is traced out in Chapter VII. The author deals in a very suggestive manner in Chapter VIII. with the objections which have been raised against the relationship existing between the anopheles and the malarial infection. He says that during many months of diligent search he has never discovered a single case of malaria in which anopheles bites could be absolutely excluded and he thinks that no other view of the transmission of malaria is tenable. In Chapter IX., on Prophylaxis, Professor Grassi advocates the compulsory treatment of the malarial patient because this patient is a danger not only to himself but also to the rest of the community. It is most important to recognise that malarial suspects should be made to include not only those who have recently had malaria but also those who have had the disease during the past two years, and even those who have resided in a malarious district during a similar period though they think that they have never had malaria. This proposal may seem to many to be a very drastic one, but the eradication of the disease is what the author would aim at. The prophylactic treatment by quinine, &c., should begin in January and be continued until the end of June. Avoidance of the bites of anopheles must be carried out by means of curtains, nets, and gloves. The author repeats that it is the duty of the

State to make both prophylactic and actual treatment as far as possible compulsory. Under the heading of "Destruction of the Anopheles" Professor Grassi points out that anopheles claviger winters in houses, and that every female destroyed during this time is worth thousands killed during the malarial months. Destruction of the larvæ in the water has been attempted by means of chemical substances and sometimes with success. The author thinks, however, that this is a more difficult matter than it appears to be. He maintains that by means of suitable treatment of the individual and by protecting him against the bites of anopheles more will be done towards eradicating the disease than can be effected by sanitary measures connected with the soil ("Boden assanierungen"), although these latter must not be neglected. In Chapter X. Professor Grassi relates an experiment in prophylaxis carried out in 1900 on the very malarious plain of Cappacio; 10 houses were included in the experiment, and of 112 persons concerned in it only five cases of malaria were noted and these only lasted a short time. In an appendix the author speaks of esanopheles, a remedy containing quinine, arsenic, and iron, as a valuable agent in the prophylactic and actual treatment of the disease. The plates appended form a valuable addition to the work.

This book by Professor Grassi is an important contribution to the subject of malaria and it presents certain advantages in having been written by a distinguished zoologist.

A Manual of Determinative Bacteriology. By F. D. CHESTER, Bacteriologist of the Delaware College, Agricultural Experiment Station, and Director of the Laboratory of the State Board of Health of Delaware. London: Macmillan and Co. 1901. Pp. 401. Price 10*s.* 6*d.*

IT is very difficult quite justly to appreciate the value of this book. Of necessity such a work cannot be final, nor can it be more than partially successful, and that not from any failure on the part of the author, but because our knowledge of most micro-organisms is so incomplete or misleading that it is often impossible even to recognise a microbe from its description, still less to classify it. All bacteriologists must, however, be grateful to Mr. Chester for placing at their disposal the immense amount of information which this book contains in an easily accessible form and for the great labour involved in its production. The author takes a perfectly clear view of the value of the material with which he has had to deal, and, as he says, "the conclusion is permanent that probably nine-tenths of the forms of bacteria at present described might as well be forgotten or given a respectful burial." Most bacteriologists would echo this sentiment. In his modest preface the author claims only that he has made the best of such material as was available and trusts that the tables will serve for identification if not for classification. For this reason he chooses the term "determinative" rather than "systematic" to describe the manual.

One great merit of this book is that it has a perfectly definite aim and that the whole work is subsidiary to the central idea. It is further an honest attempt to systematise our knowledge of the micro-organisms already described and is a piece of work which had to be done before further advances in this direction could be made; it clears the jungle of duplicate names and synonyms. But it does more than this, as it lays down definitely the lines on which future descriptions of micro-organisms must be based. It insists on the necessity of cultures on standard media and upon the importance of the bio-chemical reactions of micro-organisms in the determination of species. It systematises the descriptive terminology to be used, so as to avoid the picturesque but hazy language at present employed in describing cultures, and illustrates by diagrammatic woodcuts the types of cultures and colonies to which the suggested terms are applied. The great difficulty in using old descriptions for systematic purposes lies in the fact that the cultures of organisms were not made under standard conditions, so that an organism such as the bacillus zopfii (p. 248) appears in this book as not liquefying gelatin, while Frankland describes it as a liquefying organism. When such a broad difference as this fails—and it fails constantly—it can hardly be expected that smaller differences should be trustworthy. But while recognising that standard media of standard reaction are absolutely necessary for systematic work and willingly acknowledging that advance can only be on these lines, yet it is doubtful whether we shall advance by persuading ourselves that we have attained either a standard medium or a standard reaction. In England each laboratory is still a law unto itself so far as media and reactions are concerned. In America the Laboratory Committee of the American Public Health Association has issued instructions for the manufacture of media and for their titration, but though greater uniformity is thus secured it is far from being absolute. At present it is impossible to discard media containing complex organic compounds of uncertain or readily changed composition and to use only bodies of known composition easily obtained in a pure form. Unfortunately, also, it is not possible to do more than to standardise approximately the reaction of complex organic mixtures like our media. When a standard has been fixed we have to depart from it in order that certain microbes may grow; many earth organisms would not grow, it was found by the author, on media of standard *titre*, and hence all descriptions must be accompained by a statement of the *titre* employed. Again, we meet with the difficulty that the morphological and chemical characters of an organism change by sub-culture on artificial media, and though, as the author says, after a series of sub-cultures the organisms settle down and "establish characters which are reasonably constant," yet the characters which have been lost are just as important, and generally more distinctive, than those which are retained. It is convenient, and perhaps necessary for systematic classification, that we should wait until "reasonably constant characters" are attained, but this waiting will not facilitate recognition of micro-organisms when first isolated. All will agree with the author's dictum that "to publish a description of a bacterium after the study of one or two generations is the height of superficiality." The basis of classification adopted is, as usual, a morphological one, with the sub-groups distinguished, so far as possible, by bio-chemical reactions, but how difficult this grouping is may be seen when we find the bacillus typhosus separated from others of its sub-group by the character of "not producing pyogenic reaction by inoculation into experimental animals." This is not in accord with Sanarelli's results. The bacillus enteritidis (Gaertner) is also said to coagulate milk and to ferment lactose, characters which it is not generally supposed to possess. But though it would be easy to criticise the classification, yet the book contains so much positive good that it would be ungrateful to find fault, especially as the weaknesses are due to the inherent nature of the subject and could not, probably, in the present state of our knowledge be avoided.

The Hampstead Annual, 1901. Published yearly by SIDNEY C. MAYLE, High-street, Hampstead. Price 2*s.* 6*d.*

WE have received the copy for the year which has just passed away of this interesting annual, and are glad to record that the literary contents and illustrations keep up to the high level of those which have appeared in previous issues. The place of honour in the "Hampstead Annual" is given to a brief biographical sketch of Sir Walter Besant written by Dr. Squire Sprigge, in which the dead writer's unbounded zeal on behalf of, and generosity to, his fellow-craftsmen are well brought out. The most interesting article is one entitled Londoners and London, by Sir Richard Temple, in

which the famous financier and Indian official points out how little the inhabitants of the metropolis know of their inheritance, how blind they are to the beauties and splendours of our great city and its environment. Other well-informed articles include one on Sir Francis Palgrave as a Precursor of Ruskin, by Dr. Richard Garnett, and one on George Romney, for years a denizen of Hampstead, by Miss Beatrice Marshall; while to "The Hampstead Note-book" Sir Samuel Wilks contributes some notes on Keats as a medical student. We should be glad to see other suburban centres, especially those that have a historical past, initiate an annual on the lines of the "Hampstead Annual." We think that such periodicals would tend to some degree to dispel the dense ignorance of the Londoner concerning the London to which Sir Richard Temple calls attention. Such places as Chiswick, Fulham and Hammersmith, Chelsea, Stoke Newington, Canonbury and Highgate, to mention only the first names that occur to us, have a history rich in traditions and full of literary, artistic, and other points of interest which is well worthy of preservation. Local celebrities and the local associations of national celebrities are in danger of being forgotten owing to the fact that London, as a whole, is not merely the capital of England, but the capital of the empire, so that such publications as the "Hampstead Annual" serve an admirable purpose, and also provide good reading.

LIBRARY TABLE.

The Guide to South Africa. Edited by Mr. A. SAMLER BROWN and Mr. G. GORDON BROWN. Ninth (1901-1902) edition. London: Sampson Low, Marston, and Co., Limited. Pp. 475. Price 2*s.* 6*d.*—This is the ninth edition of this well-known guide which is now produced annually by the Union-Castle Mail Steamship Company for the use of tourists, sportsmen, invalids, settlers, and all classes, in short, whose business may take them to our enormous possessions in South Africa. The book is clearly written and neatly illustrated with coloured maps, plans, and diagrams, while a full and carefully prepared index and table of contents ensure the reader being able to ascertain what he is looking for with the maximum of speed and minimum of trouble. How many books of reference suffer terribly in their utility by their failure to indicate what may be found within their covers or where to find it? Everyone whose lot it is to work as a journalist has felt the waste of time that such incomplete guides to knowledge cause, and will recognise that when we say that the "Guide to South Africa" has no such drawbacks we are giving it praise that is well earned. The section on South Africa as a Health Resort is not very long and does not enter into much pathological or therapeutical detail. It is sought by means of the diagrams and maps to depict the climatic zones in such a way as to enable those ignorant of South African geography readily to distinguish the places most suitable for certain physical conditions, and medical men who are consulted as to the advisability of a patient proceeding to this or that locality should find the information of service, as considerable pains appear to have been taken to make it trustworthy. But we are glad to note that in more than one place explicit caution is given against the shipping of serious invalids indiscriminately to Cape Town or Durban. Certainly South Africa, to speak generally, is not at the present time an ideal country for a sick man; while no particular patient should proceed there without medical advice as to the propriety of his doing so, and some accurate knowledge of the conditions of life that he may expect on arrival.

Medical Monograph Series. No. 5: Menstruation and its Disorders. By A. E. GILES, M.D., F.R.C.S. Eng., M.R.C.P. Lond. London: Baillière, Tindall, and Cox. 1901. Pp. 100. Price 2*s.* 6*d.* net.—In this number of the Medical Monograph Series Dr. A. E. Giles has written an excellent account of menstruation and its disorders. The book is divided into two parts, the first treating of the Physiology of Menstruation and the second of its Disorders. The views published by Walter Heape upon the changes in the uterus and the relationship of "heat" or "œstrus" to menstruation are followed by the author and clearly explained. This theory of the exact meaning of menstruation in the human subject is the most satisfactory and convincing that has yet appeared and we quite agree with Dr. Giles in thinking that it probably represents the true relationship of this process. A good many of Dr. Giles's own observations are included in the book, such as the instructive table on page 58—a table to show the relation between the age of puberty and sterility. The conclusions arrived at are that if menstruation begins between the seventeenth and eighteenth year the woman is very likely to have children; if it begins between 18 and 19 years of age the degree of relative infertility increases; and if at or after 20 years of age the rate of sterility is high. The author does not mention steaming the uterus under the treatment of uterine fibrosis, a condition for which we think it especially indicated. The book is pleasantly written, contains a good deal of information upon an important condition, and is worth reading.

The Human Figure in Motion: an Electro-photographic Investigation of Consecutive Phases of Muscular Actions. By EADWEARD MUYBRIDGE. Commenced 1872, completed 1885. London: Chapman and Hall, Limited. 1901. Pp. 280. Price 20*s.* net.—The veteran Mr. Muybridge, who was the pioneer in the photography of rapidly moving objects, has produced a most interesting book. In all there are 384 separate figures, both of men and of women, walking, running, jumping, dancing, and performing various motions. Everyone will remember Mr. Muybridge's instantaneous photographs of running horses and the extraordinary and ungainly positions into which these animals got for fractions of a second. The human being, perhaps from only using two limbs for purposes of locomotion, does not look so awkward as does the horse, but the photographs show very well how different is the real motion from the apparent motion. Take the figures of athletes running, for instance (pp. 35 and 37), and note how, in reality, during a great part of the cycle the feet are both off the ground at once. Besides men, there are figures of women and children and the whole work will be found of great use, not only to artists, but to all who wish to study movement in the human subject. Although the figures are in general reduced in size from those published in the eleven-volume edition, yet they are in most cases perfectly clear and the selection is on the whole, we think, a good one. We rather wish that the series entitled, "Getting out of Bed," had been retained, for it shows admirably how silly are the common phrases, "He sprang out of bed," or "He jumped out of bed." These two acts are impossible.

Wonders in Monsterland. By E. D. CUMING. Illustrations by J. A. SHEPHERD. London: George Allen. 1901. Pp. 258. Price 6*s.*—"Wonders in Monsterland" is a brave attempt to make children understand paleontology or, at any rate, to make them acquainted with some of the more obvious phenomena of the science. The book is profusely illustrated by Mr. J. A. Shepherd, with whose illustrations in the *Strand Magazine* in particular many of our readers may be familiar. The illustrations are capital, but we can hardly give quite such unqualified praise to the letter-press. The fun is rather forced and the punning names are not very happy. Yet there is no doubt that any children reading the book would be familiarised with the appearance of the dinosaurus, the megatherium, the odontopteryx, &c. We can imagine that the reading of the book aloud to children,

with an accompaniment of explanation, would form a good introduction to a visit to the Natural History Museum, South Kensington; but we doubt whether the book is one that children would be likely to read for themselves or to get very much interested in unless they could see the bones, fossils, or other presentments of the monsters whose doings are detailed.

"Ugly": a Hospital Dog. Recitations and Readings. By GEORGE H. R. DABBS, M.D. Aberd. London: Charles William Deacon and Co. 1901. Pp. 200. Price 1*s.*—Dr. Dabbs has written an unpretentious little book which is divided into two portions. The first is a collection of hospital stories supposed to be related by a bull-dog. They deal with incidents connected with hospital life, and there is no reason why most of them should not have happened, but the non-professional reader will not, we hope, think that every hospital is such a home of romance as "Ugly" makes out. However, the stories make good reading, and no doubt the "Recitations and Readings" will come in usefully at the holiday party. We may add that any profits accruing from the sale of the work will be devoted to King's College Hospital.

An Idler's Calendar. By G. L. APPERSON. London: George Allen. 1901. Pp. 213. Price 3*s.* 6*d.*—Mr. Apperson's book is well named. He is indeed an idler, one who knows and appreciates at their proper value the delights of idleness. Real idleness, we may remark, consists not in doing nothing but in having nothing to do. Mr. Apperson's pleasant little essays conduct us through a lotus land of folk-lore and books, country smells and sights, like to the inimitable Thalysia of Theocritus and for a hard-worked practitioner we can cordially recommend Mr. Apperson's pages. We in London, at any rate, are forgetting how to be idle, and a great part of present-day illness is due to the fact that most of us never rest.

JOURNALS AND MAGAZINES.

The Journal of Experimental Medicine. Edited by WILLIAM H. WELCH, M.D. Baltimore, U.S.A.: N. Murray. Vol. VI., No. 1, issued Nov. 29th, 1901.—The November number of the *Journal of Experimental Medicine* contains a series of interesting articles. The first of these is Dr. Theobald Smith's note on the Production of Sarcosporidiosis in the Mouse by Feeding with Infected Muscular Tissue, from which we gather that sarcocystis muris containing ripe mobile sporozoites is infective to grey and white mice, and that the muscle fibres of these animals are invaded by the parasites, which are readily recognisable after the forty-fifth day, the parasite at this stage as a rule being many times larger than the sporozoite which it presumably represents. He also states that "within two and a half to three months the parasite has reached the final stage in which it consists of a chambered cyst filled with sporozoites mobile at the temperature of the body and capable of infecting other mice." A study of Chronic Hyperplastic Tuberculosis of the Intestine, with report of a case, is contributed by Dr. August Jerome Lartigan, who concludes that the treatment of the condition is obviously surgical, extirpation of the diseased tissue promising good results in a fair proportion of cases, whilst, as he points out, Nové-Josserand reports a recovery following simple laparotomy. Dr. W. G. MacCallum describes a case of multiple myeloma in which the new growths appeared to extend from the bone-marrow and show very gradual transitions into it. The cells of this tumour differ from the bone-marrow cells only in so far that they lack the specific granules of the myelocytes; they also differ considerably from plasma cells in essential particulars. They appear to be directly related to the myelocytes and are probably derived from the large non-granular forerunners of these cells. They undergo degeneration, they contain cell-inclusions, and red-blood corpuscles are numerous in parts of the tumour. Dr. MacCallum also contributes with Mr. S. S. Buckley a description of an epizootic in horses known as "acute epizootic leuco-encephalitis," a condition found among horses in Maryland, resulting in the death of a great many animals after a very brief illness. It is a kind of cerebro-spinal meningitis, in which, however, the investigators were able to find no organism which they were justified in looking upon as being the etiological factor in this disease. Dr. William Sydney Thayer has an interesting article on the occurrence of strongyloides intestinalis in the United States. This parasite was described by Normand in 1876 and carefully studied by Bavay in the same year as anguillula stercoralis. It was first discovered in Cochin China and is evidently found in the United States associated with a special form of diarrhœa, and in Maryland and Virginia it is probably more frequent than has been supposed. In temperate climates the development of the sexual free-living generation is apparently unlike that found in warmer climates, as here the direct transformation of the rhabditiform embryos into filariform larvæ predominates. Dr. Thayer considers that more systematic examination of the fæces, both in public clinics and in private practice, is much to be desired. An excellent bibliography is appended to this article.

The Veterinary Journal. Edited by Principal W. OWEN WILLIAMS, F.R.C.V.S., F.R.S. Edin. London: Baillière, Tindall, and Cox. December, 1901.—On opening the December number of the *Veterinary Journal* and reading the first two or three pages it is evident that veterinary politicians may be as lively as their medical brethren. The editorial article is refreshing in its outspokenness and patriotism—both professional and national. It is announced that the Carnegie Trust for the universities of Scotland will pay the fees of veterinary students who have the following qualifications: (1) They must be over 16 years of age; (2) they must be of Scottish birth or extraction, or must have given two years' attendance after the age of 14 at a school or institution under inspection of the Scotch Education Department; and (3) they must be qualified by preliminary examinations under the ordinances of the Scottish Universities Commission and the regulations of the Joint Board of Examiners to attend the classes for which payment of fees has been claimed. Dr. D. C. Chalmers Watson in an article on Cerebral Thrombosis in the Horse: a Clinical Study, pleads for a thorough investigation and a careful record of acute and chronic diseases in the horse and other animals. He thinks that material additions might thus be made to our knowledge of similar diseases in the human subject. A note on Veterinary Education in Holland as compared with similar education in this country is of some interest and shows that our veterinary students at any rate are not overdone with scientific work as compared with their colleagues in Holland. Mr. Henry Taylor of the New Veterinary College, Edinburgh, records Supernumerary Digits in the two fore-limbs of a Clydesdale foal. Professor Sheridan Delépine's article on the Communicability of Human Tuberculosis to Cattle, and Professor E. M. Crookshank's Introductory Address to the Royal Veterinary College are here concluded. Mr. C. Cummins Cherry, G.M.V.C., contributes a series of Reminiscences of the South African Campaign. There is also reprinted from the United States Department of Agriculture's Sixteenth Annual Report of the Bureau of Animal Industry for the year 1899, "The Nature, Cause, and Economic Importance of Ovine Caseous Lymphadenitis." This, as the editor points out, appears to be what is known to Scottish sheep-farmers as "cruels," a condition somewhat common amongst well-bred sheep. An abstract of the report on an experimental investigation of the methods of inoculation against rinderpest from the Bacteriological Laboratory, Muktesar, India, is interesting

in so far that it gives a very careful *résumé* of the advantages and disadvantages connected with each method of inoculating against rinderpest that has, up to the present, been recommended. From this report it may be gathered that all those methods of protection in which the actual disease is produced in a modified form are of greater value than are those in which no disease is set up, the immunity in the former cases invariably being more lasting than in the latter. An account of the Vaccine Institute at Aldershot and of Uhlenhuth's biological test as an aid in the inspection of meat are both papers that will interest the general reader. A note on Colonel George Fleming, F.R.C.V.S., and the veterinary profession is continued in this number.

The Quarterly Review.—The issue for October, 1901, contains a long and scholarly article upon the Plague. This somewhat mysterious malady, the origin of which is lost in obscurity, has for ages exerted an influence over humanity greater than that of any other disease. Its fatality, its rapid spread, and the distressing circumstances attending infection with, or death from, it have combined to make it a most dreaded complaint. The reviewer states that the first actual records show that a fatal disease producing pestilential buboes prevailed in Egypt, Libya, and Syria in about the third century B.C. Another terrible epidemic prevailed in the reign of Justinian, and Bede records a great pestilence as prevailing in the seventh century A.D. which may or may not have been true plague. In the fourteenth century plague appeared in an unmistakeable form in a series of epidemics, now known as "The Black Death." In these islands the epidemics appeared in 1348–1349, in 1361, and in 1368. Sicily was infected before 1347 and practically no part of Europe escaped in one or other of the epidemics. During the three following centuries plague was never absent from some part of Europe, but from 1647 to 1664 London was virtually free from plague. In the spring of 1665, however, the Great Plague of London began. Western Europe was practically free during the eighteenth century with the exception of the Marseilles outbreak in 1720, but the disease continued from time to time in Eastern Europe. Constantinople was not free until 1841. By the middle of the nineteenth century plague was believed to be no longer a source of danger to Europe, although certain authorities had their doubts, and subsequent events proved that they were right. In 1879 an epidemic of plague appeared in Vetlianka, a little village on the Volga, the disease having travelled up the Caspian from Resht to Astrakhan. Since then plague has become pandemic, for after 1894 the disease has appeared in nearly every part of the world, Glasgow, Cardiff, and London being infected in these islands. After giving a short *résumé* of the various outbreaks of plague which have occurred during recent years the reviewer passes to consider the questions of treatment and preventive measures. The former is extremely unsatisfactory. Yersin and Lustig have respectively prepared a serum, but the curative results are very inconsistent, although the sera confer a certain degree of immunity. Haffkine's serum, however, is noted as conferring an immunity which, although not perfect, greatly lessens the chance of a patient catching the plague, while if he should have it the attack is but a slight one. As to prevention, the system of quarantine is no longer in use, but its place has been taken by the modern system authorised by the International Sanitary Conferences of Venice, 1892, and of Dresden, 1893, which relies upon medical inspection of both ships and persons coming from an infected port. As a rule this system works well, although infection slipped through at Glasgow. The reviewer lays stress on the point that reliance is to be placed upon maintaining such conditions of national health that the germ may be extinguished as soon as it enters. Destructive epidemics of plague do not occur except in the midst of filth, overcrowding, and poverty. In India, however, in the words of the Indian Plague Commissioners, 1899—words gravely endorsed by the reviewer—"the fact must be faced that there are no means of stamping out the present epidemic of plague in India; that even with the best measures most rigidly applied a certain amount of danger subsists, and all that can be done is to lessen the danger as much as possible." As a contribution to the knowledge of a matter of unending interest the article deserves the attention of sanitarians and medical men.

Analytical Records
FROM
THE LANCET LABORATORY.

(1) LIQUID PETROLATUM; (2) SOLUTION IRON PEPTONATE AND MANGANESE WITH ARSENIC; (3) TERPIN HYDRATE AND HEROIN TABLETS; AND (4) FUNCTIONAL TONIC TABLETS.

(PARKE, DAVIS, AND CO., 111, QUEEN VICTORIA-STREET, LONDON, E.C.)

LIQUID petrolatum is a perfectly clear, colourless oil, with neutral reaction and taste. According to our examination its specific gravity is 0·863, while it shows signs of boiling at 200° C., the boiling being brisk when the temperature reaches 250° C. The oil is of admirable purity and well adapted for administration. It is an excellent emollient for inflammatory conditions of the throat, for which purpose it is best inhaled in the form of a fine spray produced by a specially designed atomiser. The solution of iron peptonate and manganese with arsenic is a clear dark-brown fluid with sweet vanilla-like taste. It contains 0·6 per cent. of iron and 0·1 per cent. of manganese, with one-fiftieth of a grain of arsenic in each fluid drachm. The solution has no disagreeable effects on the digestive functions. It is, of course, a powerful tonic preparation, presenting its ingredients in an easily assimilable form. The following formula is an obviously useful one: terpin hydrate, two grains; and heroin, one-fiftieth of a grain, in chocolate-coated tablets. Chocolate-coated tablets are also prepared in accordance with the following prescription: powdered ipecacuanha, one-tenth of a grain; powdered black pepper, one grain; aloin, one-sixteenth of a grain; extract of nux vomica, one-quarter of a grain; and extract of gentian, one grain. This is a very good formula exercising a beneficial action on the functions of the digestive tract.

PETANELLE FOOT POWDER.

(PATÉ BURKE AND CO., 6, WOOL EXCHANGE, BASINGHALL-STREET, LONDON, E.C.)

Petanelle consists of peat fibre, soft and yielding to the touch, which possesses absorbent and deodorising properties. It affords an excellent vehicle for the absorption of liquid antiseptics. In the case of the petanelle foot powder the fibre has been moistened with formaldehyde solution. It gives off the peculiarly irritating smell of formaldehyde. This combination is said to have been very useful to soldiers, pedestrians, athletes, and others for keeping the feet in a healthy condition. It is of service in bromidrosis.

OLD TAWNY PORT.

(JOEL DAVIS, 61, MARK-LANE, LONDON, E.C.)

This port presents the characteristics of a wine that has been stored and matured in wood for many years. It is of a brown sherry colour and has the excellent bouquet and taste of matured port made from the famous grapes of the Douro district. It is very smooth and mellow on the palate and fruity. Analysis gave the following results: alcohol—by weight 18·23 per cent., by volume 22·36 per cent., equal to proof spirit 39·13 per cent.; extractives, 6·02 per cent.; sugar, 4·40 per cent.; mineral matter, 0·22 per cent.; volatile acidity reckoned as acetic acid, 0·072 per cent.; and fixed acidity reckoned as tartaric acid, 0·225 per cent. The

wine is evidently an old genuine port matured in wood. It is therefore wholesome and, as the above analysis shows, is free from saccharine excess.

ZOECO.

(ZOECO, LIMITED, MOORGATE-COURT, LONDON, E.C.)

This is a preparation of cocoa with the proteids of milk and sugar. It has the appearance of cocoa paste. It is very sweet to the taste and it is flavoured strongly but agreeably with cocoa. It is said that the proteids used have never been coagulated. It may be presumed, therefore, that concentrated milk has been employed. The following analysis which we have made is in favour of this deduction: moisture, 27·30 per cent.; mineral matter, 3·08 per cent.; sugar, 52·61 per cent.: fat, 6·33 per cent.; and proteids, 10·68 per cent. The preparation is no doubt a useful food and is of a pleasant character. Exception, however, might be taken to its use in some cases on account of the very large proportion of sugar which is present.

ST. BONIFACE SPRING WATER.

(AGENTS: INGRAM AND ROYLE, EAST PAUL'S WHARF, 26, UPPER THAMES-STREET, LONDON, E.C.)

According to our analysis St. Boniface water is saline, lithiated, and alkaline. It is derived from the St. Boniface spring, Bad Salz-Schlirf, near Frankfort-on-the-Maine, and has some reputation as affording relief in gouty affections. Our analysis showed it to contain 15·99 grammes of mineral salts per litre, of which 12·51 grammes were common salt, the balance being made up of chloride of magnesium, sulphate of calcium, and carbonate of calcium. It has a degree of alkalinity equal to nearly one gramme per litre of carbonate of soda. The amount of lithium salt is small, not more than one and a half grains per pint. The water contains rather less than its own volume of free carbonic acid gas. The presence of salines and alkaline salts with distinct traces of lithia would place it amongst the waters which have been known to relieve gouty and rheumatic conditions, although mere chemical composition would not always account for that effect, many waters said to be useful in gouty conditions containing nothing but a few grains of lime salts.

(1) PEPTONE CORNELIS; AND (2) PASTILLES COCAINE BRUNEAU.

(C. RICHTER AND CO., 90, GREAT RUSSELL-STREET, LONDON, W.C.)

Peptone cornelis consists of small sponge-like fragments possessing a slight beef-like saline taste which is quite free from bitterness. The preparation is hygroscopic and is preserved in bottles the stoppers of which contain quick lime as a desiccant. It dissolves in water, giving a slightly opalescent solution and depositing phosphatic flakes. On analysis the following results were obtained: moisture, 3·05 per cent.; mineral matter, 8·41 per cent.; and peptone, 88·54 per cent. The mineral matter consisted of phosphates, a notable amount of iron, and some common salt. The preparation is of course a powerful nutritive and it has the advantage of being free from that unpleasant bitter taste characteristic of commercial peptone. The peptone was free from albumose, as was shown by the fact that its solution gave no precipitate with saturated solution of sulphate of zinc. The cocaine pastilles are designed for sedative purposes in the treatment of the throat and glands. Each contains two milligrammes of cocaine hydrochlorate and 0·05 gramme of borax, with one drop of tincture of aconite.

VARIOUS SOAPS.

(EDWARD COOK AND CO., EAST LONDON SOAP WORKS, BOW, LONDON, E.)

With the exception of the "cambath" skin soap, which contains camphor, not one of these soaps submitted for examination gave any indication of the presence of alkali in excess, and this exception, after all, is only apparent, since "cambath" soap contains a comparatively large proportion of moisture, so that an alkaline reaction would be shown as the result of hydrolysis. Amongst the soaps received were "buttermilk" soap, "wild violets" soap, "tourists' shaving" soap, and "creamy shaving"-stick. The soaps one and all were free from irritants and furnished evidence of being made from materials of desirable purity. The "cambath" skin soap is very agreeable in the bath.

KATHREINER'S PATENT MALT COFFEE.

(AGENT: P. F. VOELTER, 9, BLENHEIM-PLACE, LEEDS.)

It is difficult to tell as regards appearance the difference between the infusion of this malt coffee and that of ordinary coffee. Nor is its aromatic flavour much less pleasing. It really makes an excellent black coffee with strong stimulating properties and empyreumatic smell. It must be confessed, however, that it lacks a something which in our experience only true coffee can supply. It yields a rich, black liquor containing all the phosphates of the barley, and the refreshing effect of phosphates is well known. Of course, there is no alkaloid present. This malt coffee is evidently prepared with the greatest care, being very uniformly roasted. We made careful examination for arsenic, since, as is well known, that poison may be derived from the fuel used in the malting process. No response, however, was given to the most delicate test. We regard this as the be t coffee substitute that we have so far examined.

FIBROUS BEEF-TEA.

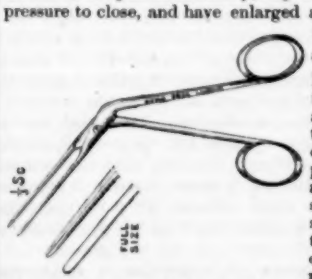
(BRAND AND CO., LIMITED, MAYFAIR WORKS, SOUTH LAMBETH-ROAD, VAUXHALL, LONDON, S.W.)

On opening the tin there proved to be a jelly inside containing a definite proportion of sediment in which under the microscope muscular fibre was detected as well as muscle albumin. This beef-tea, therefore, is something more than a stimulant—it has a decided nutrient value also. It has a pleasant, beef-like flavour. The preparation has been designed for hospital use, and tins containing 3 lb. costing *2s. 6d.* are said to be sufficient to make 10 pints of beef-tea. In this form the beef-tea is certainly useful and convenient for hospital and invalid purposes in general.

New Inventions.

NEW PATTERN OF NASAL AND AURAL WOOL-CARRYING FORCEPS.

MOST of the wool-carrying forceps for nasal and aural work are made to open horizontally, require a certain amount of pressure to close, and have enlarged and serrated ends. All these disadvantages are absent in the pattern here shown, the blades of which are smooth and slightly tapering (these when closed can be used as a probe), open vertically, and require no pressure to hold the wool securely; when used the wool can be easily dropped off, there being no irregularities for the fibres to cling to. If the wool is twisted round the blades it can easily be pulled off by means of a dental wool casket. They are very convenient for packing cavities. These forceps are made either with or without a take-off joint. They were made for me by Messrs. Down Bros., St. Thomas's-street, London.



A. STANLEY GREEN, M.B., B.S. Lond.
Lincoln.

UNIVERSITY OF CAMBRIDGE.—The following were admitted to the degree of Doctor of Medicine on Dec. 12th: Evan Laming Evans, M.A., M.B., B.C., Trinity College, and James Graham Forbes, B.A., M.B., B.C., D.P.H., Christ's College.

PRIZE ESSAY

FOR

The Erection of a Sanatorium

IN ENGLAND

For Tuberculosis.

HIS MAJESTY THE KING

Has graciously consented to direct that the Expenditure of a large sum of money which has been placed at his disposal for charitable or utilitarian purposes, shall be devoted to the Erection in England of a Sanatorium for Tuberculous Patients.

His Majesty has appointed the following Gentlemen as an Advisory Committee for this purpose:

SIR WILLIAM BROADBENT, Bart., K.C.V.O.
SIR RICHARD DOUGLAS POWELL, Bart., K.C.V.O.
SIR FRANCIS LAKING, K.C.V.O.
SIR FELIX SEMON.
SIR HERMANN WEBER.
DR. C. THEODORE WILLIAMS.

It is intended to construct the Sanatorium on the best lines which past experience and original thought can suggest, and in order to obtain the most valuable opinions, His Majesty has been pleased to approve that a sum of £800 be awarded in

Prizes for the best Essays and Plans which may be sent in to the Advisory Committee, under the following conditions:

1. Medical Men of all nationalities may compete. The Papers may either be the work of a Medical Man, or the joint production of a Medical Man and an Architect.

2. The Sanatorium is intended for 100 Tuberculous Patients—50 male and 50 female.

3. Of the total number of beds, 88 will be assigned to the more necessitous classes, whilst 12 will be reserved for the well-to-do.

4. The accommodation for all patients is to be comfortable, a separate room being provided for each. Superior arrangements to be made for the more wealthy patients.

5. It may be taken for granted that the Sanatorium will be erected on an elevated and sloping site, with a sunny exposure, and well sheltered from cold winds. It will have a Farm at a convenient distance, and be surrounded by extensive grounds, well-wooded, and affording ample space for exercises of various kinds. The soil will be dry and permeable, and the water supply abundant.

6. The Sanatorium must be fitted with the latest sanitary arrangements, and equipped with all requirements for scientific research. Provision should also be made for the recreation of the patients.

7. Economy in construction will be an important consideration, but it must not interfere with the reasonable comfort of the patients or the efficiency of the Institution.

8. The Essays must be in English, and type-written.

9. The Essays must not bear the name or names of their Authors, but should have a Motto, and each Essay should be accompanied by a sealed envelope bearing the Motto on the outside and containing the full name and address of the Author or Authors inside.

10. All Essays and Plans must be sent, postage paid, on or before the 15th April, 1902, to one of the Secretaries of the Committee:

Dr. P. HORTON-SMITH,
15, Upper Brook Street, W. London; or

Dr. J. BROADBENT,
35, Seymour Street, W. London.

11. Three Money Prizes of £500, £200, and £100 respectively will be awarded, in order of merit, on the recommendation of the Advisory Committee, for the three best Essays, provided they come up to the requisite standard of excellence. Brevity will be an important consideration, and a summary of the main features of the scheme should be appended to the Paper. Unsuccessful Papers will be returned to the Authors.

THE LANCET.

LONDON: SATURDAY, JANUARY 4, 1902.

The King's Sanatorium.

THE new year opens auspiciously for medicine. The most important medical event of the year 1901 was the British Congress on Tuberculosis, and one of the things definitely decided by that Congress was the value of the part played by sanatoriums in the treatment of tuberculosis. We take particular pleasure in announcing a remarkable endorsement of this view. HIS MAJESTY THE KING has graciously consented to direct that a large sum of money, placed at his disposal for charitable or utilitarian purposes, shall be devoted to the erection in England of a sanatorium for tuberculous patients. In allocating the fund entrusted to his discretion to such a purpose HIS MAJESTY is giving another example of the practical sympathy which he has with the needs of the suffering poor. Not since EDWARD VI., himself a victim to tuberculosis, made himself responsible for the charitable foundations of Bridewell, Greyfriars, and St. Thomas's Hospital, has any ruler of England shown such a deep and practical desire to benefit the necessitous sick as that manifested by the founder of the Prince of Wales's (now King Edward's) Hospital Fund for London. As PRINCE of WALES the KING was well known to all his subjects as a warm-hearted man—one whose dignity never prevented him from doing a kindness and one whose lofty position never blinded him to the troubles and trials of his subjects. His succession to his inheritance has enormously increased his responsibilities, but it is clear that it has in no way blunted his sympathy with the most unfortunate section of those who own his rule—the victims of disease.

The KING has been guided in the matter by an Advisory Committee, consisting of Sir WILLIAM BROADBENT, Bart., K.C.V.O., Sir RICHARD DOUGLAS POWELL, Bart., K.C.V.O., Sir FRANCIS LAKING, K.C.V.O., Sir FELIX SEMON, Sir HERMANN WEBER, and Dr. C. THEODORE WILLIAMS, and the first step towards erecting the new sanatorium is one that is calculated to insure useful results. HIS MAJESTY has been pleased to approve that the sum of £800 shall be awarded in prizes for the best essays upon sanatoriums for the victims of tuberculosis. The essays, with all necessary constructive plans, are to be sent in to one of the honorary secretaries of the Advisory Committee by April 15th, 1902, the following conditions having to be observed:—

1. Medical men of all nationalities may compete. The papers may be either the work of a medical man or the joint production of a medical man and an architect.
2. The sanatorium is intended for 100 tuberculous patients—50 males and 50 females.
3. Of the total number of beds, 88 will be assigned to the more necessitous classes, whilst 12 will be reserved for the well-to-do.
4. The accommodation for all patients is to be comfortable, a separate room being provided for each. Superior arrangements to be made for the more wealthy patients.
5. It may be taken for granted that the sanatorium will be erected on an elevated and sloping site with a sunny exposure, and well sheltered from cold winds. It will have a farm at a convenient distance, and be surrounded by extensive grounds, well wooded, and affording ample space for exercises of various kinds. The soil will be dry and permeable, and the water-supply abundant.
6. The sanatorium must be fitted with the latest sanitary arrangements, and equipped with all requirements for scientific research. Provision should also be made for the recreation of the patients.
7. Economy in construction will be an important consideration, but it must not interfere with the reasonable comfort of the patients or the efficiency of the institution.
8. The essays must be in English and type-written.
9. The essays must not bear the name or names of their authors, but should have a motto, and each essay should be accompanied by a sealed envelope bearing the motto on the outside and containing the full name and address of the author or authors inside.
10. All essays and plans must be sent, postage paid, on or before the 15th April, 1902, to one of the secretaries to the Advisory Committee.
11. Three money prizes of £500, £200, and £100 respectively will be awarded in order of merit on the recommendation of the Advisory Committee for the three best essays, provided they come up to the requisite standard of excellence. Brevity will be an important consideration and a summary of the main features of the scheme should be appended to the paper. Unsuccessful papers will be returned to the authors.

The secretaries to the Advisory Committee are Dr. P. HORTON-SMITH, 15, Upper Brook-street, London, W., and Dr. J. BROADBENT, 35, Seymour-street, London, W.

The eminently practical nature of these conditions will be obvious to our readers. Just enough is told to the competing essayists to prevent them from going off the line, while information that might hamper them is withheld from them. They are not told, it will be observed, anything more of the actual site than that the sanatorium will be erected on an elevated, well-sheltered spot with a sunny exposure; nor are they informed how much money is to be placed at the disposal of the architects, the sum being merely described as a large one. That economy in construction will be an important consideration is not to prevent the sanatorium from being fitted with everything necessary to render the patients absolutely comfortable, while provision in the plans is to be made for the latest sanitary arrangements and for all the requirements of scientific research work. The erection of a model sanatorium upon a design approved by so practical a body of physicians as the Advisory Committee should be an incalculable benefit to the community as well as to the patients. It will give a stimulus to a movement already started, but not running as strongly as could be desired, for providing suitable sanatoriums for all tuberculous subjects to serve the needs of different districts of the country. "If preventable, why not prevented?" asked the KING 10 years ago, referring to the prophylaxis of certain common diseases in his inaugural address as President of the International Congress of Hygiene and Demography, and the manner in which he has decided to expend the charitable fund of which he has accepted trusteeship shows how he considers that his epigrammatic question should be answered as far as tuberculosis is concerned. Tuberculosis must be prevented and no surer or wiser way of fighting this fierce and insidious foe to our national health could be devised than the foundation of a model sanatorium. Such an institution will furnish county and municipal authorities all over the kingdom with an example to follow. The circumstances of its erection will bring to their attention the advisability of attempting to

provide similar assistance for the local needs of those in their sanitary charge; the model building will give them an opportunity of seeing what they should attempt actually to construct. To all medical men the KING'S decision to use a fund placed at his disposal "for charitable or utilitarian purposes" in erecting a model sanatorium for tuberculous patients will give particular pleasure. There is hardly a public institution in our country that cannot claim to exist to some extent "for charitable or utilitarian purposes." So that the choice left to HIS MAJESTY in the allocation of the money was immense. And he has been pleased to honour medicine by devoting the money to the foundation of a beneficent medical institution. In the name of the sick poor and in the name of the medical profession we thank him heartily, blending with our thanks a sincere hope that his coronation year may bring him many blessings.

The Consultant and the General Practitioner.

THE relationship of the general practitioner to the consulting surgeon or physician and *vice versâ* is very delicate. The subject is one which has frequently been discussed in our columns, the circumstances in which it appears on the *tapis* being both numerous and various. For THE LANCET is often asked by a correspondent for an opinion upon some particular case in which these questions of professional politeness and rectitude between medical men have arisen. Just as with the British Constitution, on the whole the most admirable socio-legal system existing, so with the medical profession the fact that natural indefinite growth has predominated above any formal declaration of doctrines and laws gives rise from time to time to questions for which no direct answer can be found in definite printed law, but the rights of which must be determined by adherence to those general principles on the understanding of which the medical profession has grown and substantiated itself.

At the very outset of discussing the mutual behaviour of the consultant and the general practitioner we may be confronted by the objection of one side that there is no such thing as a consultant. We can imagine him to say: "I am a surgeon pure and simple. Every surgical case of any kind is fish that comes to my net, but I attempt no other kind of work. Medical and gynæcological cases I refer to other people." Being prepared to do any surgical work that comes to his hand, whether the patient comes of his own initiative or because he has been recommended by a medical man, what is he to do in the former case? In the latter, when the patient brings a verbal or a written communication from a professional brother his course of conduct is, of course, plain enough. Common politeness alone would put him on the right path apart from any thought of professional etiquette—which, by-the-bye, is in many directions only a particular application of common politeness. He sees the patient and gives his opinion or not as seems fit in the particular circumstances, and in any case writes to the general practitioner about the case. So far matters are plain enough, and no difficulty can be easily imagined with regard to patient, practitioner or consultant. Suppose, however, the first case, that in which a patient consults a surgeon or physician on his own initiative. Such an instance is the occasion of a letter which we publish in our correspondence columns from Mr. F. MONTAGUE MILLER. We do not think, judging from the bare facts, that our correspondent has grave cause for complaint against the particular consultant who saw his patient. To begin with, Is it the duty of the consultant to ask any questions as to how the patient comes to see him? We think it is. Many patients, either through ignorance or wilfully, will visit the consultant unknown to the practitioner. This can only become plain to the former if he habitually asks his patients, "Who is your usual medical attendant?" or some such question from which he can ascertain the position. Obviously if one member of the medical profession assumes a position in which he expects his opinion to be sought by other members of his profession it will be his duty as much as his interest to see that they are never the losers at his hands. Such a position naturally befalls hospital physicians and surgeons who gain an exceptionally wide experience in particular branches of work. Whether they accept the term "consultant" or not, their opinion and advice are likely to be sought by the general practitioner, and they should conduct their practice accordingly. Difficulty arises when, the question being put as we have suggested, the patient replies: "I do not want my usual medical adviser to know anything of this visit or its results." Such a case not uncommonly occurs. What is now the consulting surgeon's or physician's proper course? It must vary according to circumstances. Generally speaking, the right thing for him to do is to explain to the layman the propriety and the enormous advantage of admitting the general practitioner to a knowledge of what has been done. More particularly if an operation is advised will the consultant desire to have the presence of the general practitioner and his collaboration, for the after-treatment may be left mainly in his hands. Suppose, however, as occasionally happens, the patient says, "No; I am determined that Dr. —— shall have nothing to do with this matter." Some would say that the consultant must then refuse the case. This would be an easy solution of the difficulty, but unfortunately every case cannot be determined in this manner. The consulting surgeon or physician has a duty to the public as well as to his fellows. A member of the public has chosen to ask him, and him only, for his help. He is, we think, bound to give it unless in doing so he is absolutely breaking faith with his profession by constituting himself a sort of judge of, or even spy upon, a professional colleague. In short, no hard and fast line can be drawn. The consultant must use his discretion, but the general practitioner must not under the provocation of an apparent slight be too ready to look upon his brother medical man as greedy.

The lot of the young consulting physician or surgeon is not one of easy affluence. Hard work and small remuneration are his fare at the hospital. The rewards of "coaching" are in much the same proportion, and these, with perhaps some occasional fees for literary work, must be in many cases for years the main sources of income for the man without private means till time and experience bring practice. In the case of a young surgeon there is often opportunity for assisting a senior by paying a visit for him after operation or perhaps performing some

of his less grave operations in his stead, and to this extent the young surgeon is better off than the young physician. Moreover, the value of a physician's opinion grows with his age, but that of a surgeon's dexterity does not to the same extent. He cannot dispense with experience, but when the diagnosis is certain a light burden of years may be to his advantage. Consequently a young surgeon may be sought after, but rarely a young physician. If the general practitioner recognised that the consultant was often engaged in every whit as keen a struggle for existence as himself he would not be so quick to find fault with him. But, on the other hand, it must be pointed out that on several occasions, when the relations of the general practitioner to the consultant have been submitted to our consideration, we have found the consultant to have been heedless of the fact that the patients in question were at the time the patients of another medical man. This is altogether wrong.

Small-pox and Vaccination.

THE Hunterian Society may be congratulated on the success of the meeting on Nov. 13th, 1901, the proceedings of which we have already published in THE LANCET.[1] The subjects under discussion were Small-pox and Vaccination. Dr. J. MACCOMBIE'S paper on the Differential Diagnosis of Small-pox will be found of great value to medical practitioners in London at the present time. We have referred several times to certain points which Dr. MACCOMBIE lays stress upon, such as the modifications in the eruption of small-pox brought about by previous vaccination; also to the fact that, owing to the decrease of small-pox in recent years due to the general manner in which vaccination has been taken advantage of by the better-educated and more reasonable section of the community, many practitioners have had but very slight experience in the diagnosis of the disease. Dr. MACCOMBIE, however, draws attention to other symptoms upon which he bases a diagnosis of small-pox. He mentions the pre-eruptive stage in which difficulties often occur in connexion with prodromal rashes which may simulate those of scarlet fever and measles. He considers that circumscribed punctate prodromal eruptions showing on the groins, the sides of the trunk or the lumbar regions, or on the flexures of the arms and legs, or morbilliform or patchy non-punctate erythemata affecting usually the extensor surface of the arms, the hands, the legs, or the feet, if the initial symptoms of small-pox be present, are often sufficient warranty for suspecting the onset of small-pox and for taking measures accordingly. It is also important to remember that small-pox prodromal rashes are extremely rare in persons under 10 years of age, whilst the majority of cases of scarlet fever and measles occur under that age. In discussing the nature of the specific eruption Dr. MACCOMBIE maintains that the diagnostic points between chicken-pox and small-pox (in the differential diagnosis of which mistakes are frequently made) are the following: (1) the distribution of the eruption; (2) the shape of the vesicles; (3) the rate of growth of the vesicles; and (4) the unilocular character of the vesicles of chicken-pox compared with the multilocular nature of the vesicles of small-pox.

[1] THE LANCET, Dec. 28th, 1901, pp. 1785 and 1797.

Dr. MACCOMBIE in concluding his paper draws attention to another point of great importance, namely: In what way can the present prevalence of small-pox be best utilised for the purposes of medical education? We thoroughly agree with him that it is desirable that the Metropolitan Asylums Board should recognise its responsibility and its duty in this matter and we trust that it will speedily utilise to the fullest extent the small-pox material at its disposal at the wharf and at the hospital ships for the clinical demonstration of that disease to students and practitioners.

Dr. MACCOMBIE likewise read a communication upon Vaccination in which he brought forward statistics clearly proving the immunity of recently vaccinated individuals from small-pox. He maintained that in his experience the severity of an attack of small-pox in vaccinated subjects bears, as a rule, a distinct relationship to the quality of the vaccination scars. This is a point upon which sufficient emphasis has not been laid. The case-mortality per cent. derived from a study of 11,724 cases of small-pox in vaccinated subjects shows very clearly that four or more good marks confer a much more certain protection than does one indifferent mark, the percentage of deaths varying from 2·7 per cent. in the former class to 16·7 per cent. in the latter. In all his large experience Dr. MACCOMBIE has never seen a case of small-pox in a person who had been efficiently vaccinated—meaning by this term a person who showed one-third of a square inch or more of well-foveated primary vaccination surface and who showed also marks of revaccination. This is evidence that cannot be successfully controverted by platform faddists who have probably never seen a single case of small-pox. Dr. MAJOR GREENWOOD read a paper upon Vaccination, regarding the subject principally from the point of view of the enforcement of its performance. We agree with him in his statement that boards of guardians ought to have nothing to do with the administration of vaccination laws. If the enforcement of these laws is to be entrusted to any local authority it should be to the borough council, to the health department of which it naturally belongs, and we thoroughly endorse the proposal that it would be better to place the enforcement of vaccination under the control of some central authority not likely to be influenced by local prejudice. Dr. W. ARTHUR BOND also submitted a communication upon Vaccination, in which he showed that in London during the past 10 years (1891 to 1900) of the vaccinated of all ages the percentage of deaths of those attacked was 3·1, of the unvaccinated it was 18·8. In the discussion which followed the papers we have named several speakers took part and some useful information was elicited.

The meeting of the Hunterian Society was an opportune one, as the present outbreak of small-pox shows no sign of decrease. It is perfectly useless to argue with that class of the community who pose as anti-vaccinationists; they are entirely deaf to the voice of reason. The statistics, however, brought forward at this meeting were very convincing and deserve wide circulation. We would take this opportunity of protesting against the manner in which the small-pox returns are published in the daily press. We do not refer to the number of admissions, but to the statement as regards the number of deaths. A certain number of patients are stated to have

died during the week; of these some are returned as vaccinated and the others as non-vaccinated, the number in the former class being nearly always greater than in the latter. This mode of expression is very misleading and calculated to do an immense amount of harm to the cause of vaccination. It surely would not give much extra trouble if the number of patients who showed vaccination marks were divided into classes—those who had been recently vaccinated and those who had not been vaccinated within 10 years. The return of the number of deaths would then be of some real use as demonstrating the efficiency of revaccination, although naturally information of greater value would be secured if an elaborate classification could be given, stating the ages of the patients who had died, the time which had elapsed since they had been vaccinated, and the character of the marks. Doubtless such statistics will be forthcoming in the future, but it would be better to refrain from any classification than to continue the method which is now adopted.

The Reorganisation of the Army Medical Services.

In the interval which has elapsed since the publication of the report of the committee appointed by the Secretary of State for War to consider the reorganisation of the Army Medical Services, the subject has been discussed from every point of view, and with a result which must have been disappointing to the War Office authorities. The report has, on the whole, been severely and adversely criticised, and we can only hope that the objections which have been urged will be very carefully and impartially considered before any new warrant for the Army Medical Services is drawn up finally. It is surely time that, in the interest of all concerned, these services should be placed upon a satisfactory footing and that an end should, if possible, be put to a contention which has been going on for so many years. We have had the assurance of Mr. BRODRICK'S desire that the British army should have the best medical service in the world, and we have likewise had the assurance of some eminent civil members of the committee of experts that the War Office inquiry was deliberately undertaken in this spirit. It need scarcely be said that no one cares to identify himself with failure, but such will, it is to be feared, nevertheless prove to be the case if the proposals of Mr. BRODRICK'S Committee be adopted as they stand at present. As we pointed out at the time the committee was constituted, the initial mistake was made of not having an army medical officer of high rank, ability, and experience appointed to serve upon it.

The present seems an opportune time for calmly and dispassionately reviewing the situation as it now stands. That the aim, object, and intention of the scheme outlined in the committee's report are good we do not question, and that it contains many excellent points we freely admit, some of which especially benefit the officers of the Royal Army Medical Corps, while others are in the interest of the whole army. There is a plain recognition of the principle of selection for promotion as opposed to the dead-level one of seniority; increased opportunities are held out for professional study and for rewarding scientific or professional attainments; the establishment of a medical staff college in London is a proposal which has many obvious advantages; increased rates of pay for medical officers generally are recommended, together with the institution of specialist and hospital charge pay; brevet promotion is to be given for distinguished service; the temporary attachment of a medical officer to a regiment and more fixed tenure of appointments in future and less foreign service all should make for good; increased facilities are granted for retiring with a bonus at different periods of service; and the rate of pay of the Director-General, as head of the Army Medical Service, is to be raised in order to make it more commensurate with, and worthy of, his position and responsibilities. The step which has since been taken to give him a seat on the Council and Army Board is so manifestly right as to need no argument in its support. On the other hand, without criticising in detail the new scheme of army medical reform as foreshadowed and outlined in the committee's report, we may consider some of its blots and shortcomings. There is the uncertainty, to put it mildly, about a medical officer's right to retire, as at present, on £1 a day after 20 years' service. Although we do not believe, as we have already said, that there is really any intention of revoking an existing privilege without offering any compensatory advantage in lieu thereof, still the matter should be made quite clear as far as it affects medical officers now serving. To render a medical officer liable to be retired compulsorily after serving 18 years with a gratuity of £2500 is so clearly to make his position financially worse instead of better than it is now under existing regulations that we need not stop to argue about it. The terms, too, relating to the examination and optional or compulsory retirement of medical officers after having served six years in the rank of captain require to be made clearer than they are at present. A large number of medical officers serve with British troops in India, and the report of the committee leaves us somewhat in doubt as to what will be their exact position and pay in that country; but we assume that this is owing to the fact that the Indian Government has first of all to be consulted and its assent to any scheme obtained.

As to the *chevaux de frise* of examinations proposed to be placed in the path of the army medical officer during his career in the service, such a course could not fail to be distasteful and unpopular. There are those who regard a system of examinations as a very inadequate test at the best, and in the case in question as unnecessary. If it be urged that it is the usual, and indeed only available, test, then we have to say that the committee do not seem happy in their repeated application of it. As regards the Advisory Board we confess that we have grave misgivings from a business point of view as to the workability of so large and mixed a board charged with so many functions. Take, for example, army sanitation in all its branches, including the consideration of plans for barracks and hospitals, and questions of sanitary engineering. We see no objection—on the contrary, it is most sensible—to have such a board to advise on all questions affecting the education and training of medical officers, and the application of systems of hygiene to army life and practice, and so forth; but the less such a board has to do with all matters properly coming within the province of the

military officials the better. Assuming that it was for many reasons deemed necessary to keep the medical service and its headquarters always in close touch with the civil profession and the medical schools, this could have been accomplished by the selection of two or three civilians of acknowledged reputation and standing in the medical profession (with power, whenever necessary, to consult any eminent specialist in any branch of medical science they liked) to act as members of the Advisory Board.

It is possible that Mr. BRODRICK, while acting in the spirit and adhering to the lines and principles which he had doubtless laid down in his own mind for his guidance, might have saved himself and the committee over which he presided from several rocks and shoals if he had studied the articles that appeared in our columns and had adopted some of the points embodied in the scheme which we outlined.[1] Let us take the subject of examinations by way of illustration. The candidate's professional qualifications, the posts and offices that he has held, and the character which he brings with him from his hospital and medical school should be a sufficient guarantee of professional fitness for the army. It will be seen that we proposed, for reasons which we assigned, to abolish the present entrance competitive examination as unnecessary and in substitution thereof to institute an examination, say, after about 10 years' service. This examination was to be of two kinds. First it was to be a pass examination by which an officer could show that he had kept himself reasonably acquainted with the progress of surgery, medicine, and hygiene—the tests to be made as practical and pertinent to army service and army hospital requirements as possible. Second, there was to be a voluntary honours examination in subjects to be selected by the candidates themselves, the range of subjects embracing surgery in all its branches, medicine, epidemiology, bacteriology, and hygiene. In the case where a man selects his own subjects it may fairly be assumed that he has given time and attention to the special study of them and he would expect the examination test to be a severe one. A separate list should be kept of the honours men and their names should be marked with an asterisk in the Army List. With this information, with the officers' records of service, and with the reports received from time to time about them, the head of the medical service should have no difficulty in selecting the best and most suitable men to fill different posts.

In the series of articles to which we are referring we may add that the following subjects were considered:—leave for special study at home or on the continent of Europe, the provision of an army medical school in London, the practical training of medical officers at military manœuvres, the increase of the army nursing establishment and the better training of hospital orderlies, the greater utilisation of civil hospitals, the introduction of an army dispensary system, the formation of an army sanitary corps for field service, the question of field medical transport, and the provision in time of peace of a large and duly registered medical reserve to be drawn from the civil element of hospitals in this country and the colonies on the outbreak of war. The whole question of providing a first class medical staff for an army is in reality a much more comprehensive and difficult one than is commonly supposed. We are aware, of course, that the report of the War Office committee in its present shape is necessarily incomplete and only supplies the loose framework of a scheme. It cannot have been intended as final and a number of subjects have been purposely left untouched by it—such as, for example, the points raised by Professor A. OGSTON. All these have still to be considered before any complete system of reconstruction can be formulated. But the aim and spirit of the committee's report are good and it contains many excellent points. Indeed, that it is capable of being so remodelled and modified as to fulfil its purpose we think possible. It rests with Mr. BRODRICK to effect this.

[1] THE LANCET, April 27th, 1901, p. 1224.

Annotations.

"Ne quid nimis."

IS THE COAL-SUPPLY OF ENGLAND SERIOUSLY DIMINISHING.

THE possibility of England being one day without coal affects the interests of every Englishman, for if England's coal-supply can be shown to be within even a measurable distance of coming to an end one of the prime factors profoundly concerning her supremacy and prosperity is threatened with removal. Yet that there is reason for some anxiety on this point is evident from the fact of a Royal Commission having been just appointed to inquire into the extent and available resources of the coal-fields of the United Kingdom and the rate of exhaustion which may be anticipated. We are glad to note that this Commission exhibits a very strong composition, experts in every branch of the question, technical, economic, and scientific, being adequately represented. All previous speculation, based chiefly on geological considerations, can no longer be counted as safe to rely upon because the rate of exhaustion has considerably exceeded the broadest calculations. The output in 30 years has more than doubled and if the views of some be correct as to the extent of the fields the coal at present in sight will have been exhausted long before the lapse of the present century. There can be little doubt that there is abundant room for improvement in regard to utilising the real value of coal as fuel. An immense waste of coal occurs through defective means of burning it. Our London fogs are proof of this and if further evidence is needed we have only to inspect the seashore, which in places contiguous to shipping traffic will be found strewn with small pieces of unburnt coal besides cinders still possessing value as fuel. It has been said that there must exist beneath the Atlantic and in a straight line between New York and Liverpool a huge bank of coal cinders and ash, pitched overboard by the liners, sufficient to form a bank for railway purposes. The question of how far coal can be more economically burnt, that is, how better its value as fuel can be realised, should prove to be one of the most interesting subjects for the consideration of the Commission. Meanwhile, is it possible that some new source of energy and power will be found? We know what great natural forces exist around us, but our power to utilise them is at present *nil*. The tides, the winds, the sun, all represent forces of enormous magnitude; but how can they be turned to practical account? There is little doubt that some day this will be accomplished, and it is probable that the agency will be electricity. Energy at present is derived with extreme extravagance. Steam represents but a tithe of the available force of the coal producing it and electricity still

less. If coal could be translated directly into electricity without the intermediate stages of burning, raising water to boiling-point, converting it into steam, using the steam in an engine, and attaching an engine to a dynamo, an ideal way of realising its value as fuel would be attained. If, however, the coal-supply should fail, to what new source of energy and force shall we turn? It is difficult to supply the answer except by assuming that new or economical and practicable means will be discovered by which the great natural forces may be utilised. The proceedings of the Royal Commission on Coal will be followed with the greatest interest.

THE CHEMISTRY OF THE NEW POSTAGE-STAMPS.

THE nature of the colouring matter used for distinguishing the values of postage-stamps is, as we have pointed out before, a matter of some importance, for, however dangerous the dirty practice of licking stamps may be proved to be the convenience of possessing a moist tongue for the purpose cannot be resisted by most people. That the habit has its dangers is no hypothesis. Blood-poisoning has without the slightest doubt been traced to licking an infected postage-stamp, and the chances of a postage-stamp becoming infectious are obviously abundant. We may at least expect the postal authorities to avoid as far as possible the use of doubtful colouring materials on stamps and we have reason for believing that considerable care is exercised to secure this desirable result. This year it was decided to revert to red as the distinguishing colour of the penny stamp, and all the new stamps bear the portrait of His Majesty the King. In the particular instance of the new penny stamp the colour, as we find by experiment, is admirably adapted for the purpose. We have been able to recognise it as one of the innocuous aniline reds, which is peculiarly resistant to atmospheric action or the action of moisture. Indeed, strong acids disturb it but little. We could find no injurious matters present, no irritant or metallic poison. The new halfpenny stamp, we find, is coloured with similar innocent materials to those which we found on a previous occasion.[1] The adhesive material is dextrin or British gum in all instances. From a chemical standpoint, therefore, the postage-stamps are not likely to prove poisonous, although in giving this opinion it is well to reiterate that infection from septic matter must always remain a strong possibility (when it is considered how postage-stamps are handled and how they are left lying about, frequently under an undesirable environment), so long as the habit of licking them is persisted in.

THE SITUATION AT THE MACCLESFIELD INFIRMARY.

A SPECIAL meeting of the governors of the Macclesfield Infirmary was held on Dec. 23rd, 1901, to consider a motion to be proposed by one of the governors, Mr. W. R. Brown. The gist of this motion was that the governors were regretfully compelled to give notice to Miss Clarke to terminate her engagement as junior house surgeon within four weeks from that date and that she should be offered a year's salary as a solatium. Mr. Brown, in introducing the motion, said that the governors might feel some surprise thereat, but he felt that there was no course left but to concede the terms of the honorary medical staff. He denied that they were fighting the question of women *versus* men as doctors. The governors, he said, had done nothing but what was within their right, but the medical men took offence because the governors had ignored their views. Now the governors had to retreat because of their helplessness in face of the impregnable unity of the medical profession. Mr. Brown admitted that the medical men had not said all that they might have said in justification of their action; nor had they left the institution in the lurch, but had maintained the traditions of their profession in attending to the sick and poor in the infirmary. The proposed motion was seconded by Alderman Pickford. A governor suggested as an alternative policy that a lady, Miss Ross, be invited to accept the post of consulting physician at the infirmary. The mayor, who was presiding over the meeting, then read a letter containing a suggestion that a lady doctor should be kept on for duty amongst the women and children. Other governors spoke against the proposed motion, which when put resulted in 3 voting for it and 6 against, while 2 remained neutral. Mr. Brown's attempt to deal with the position therefore failed. But on Monday, Dec. 30th, another special meeting of the governors was called by the mayor, at which he was able to announce that Miss Clarke had resigned her position, placing herself unconditionally in the hands of the governors. The resignation was accepted and the mayor proposed that a year's salary should be paid to Miss Clarke as solatium, but there being some doubt as to the legality of such a proceeding the governors agreed to subscribe amongst themselves the sum of £100 as a testimonial for her. As a result of Miss Clarke's action the medical staff will withdraw their resignations. Mr. Brown is to be complimented upon his practical attempt to bring about a solution of the difficulty. He worked, not in the interests of the honorary medical staff, but in the interests of the infirmary, and this is exactly what he should have done, being a governor, while it is exactly what a majority of the governors would not do. There seems but little doubt that Mr. Brown's action has resulted in precipitating a settlement by causing the junior house surgeon to reconsider her decision not to resign which, if maintained, would have been most unfortunate. We sympathise deeply with Miss Clarke. She was placed in an entirely impossible position by the governors, who, in their desire to run counter to the medical staff, took up an attitude which they could not maintain.

A FRENCH APPRECIATION OF MISS FLORENCE NIGHTINGALE.

THE writers of the first French work which has hitherto been published about nurses[1] have done full justice to the pioneer of the great nursing movement which within contemporary memory has from small beginnings assumed such gigantic proportions. It is to Miss Florence Nightingale, they say at page 135 of their book, that the whole world is indebted for the introduction of sick-nursing as a profession for educated women, her authority dating from the remarkable work which she accomplished in the British Crimean ambulances. Born at Florence in 1820, Florence Nightingale was delicately nurtured and she received a careful education. But early in life the unhappy lot of the sick impressed itself so vividly upon her mind that the attractions of society at once and for ever lost all their charm. She forsook the polite world and determined to see for herself if it were not possible to alleviate suffering by the exercise of intelligent care. When no more than 25 years of age she undertook a journey to the continent in order to study the nursing systems prevailing in the best known institutions for the relief of disease. Amongst others she visited the Filles de la Charité de Saint-Vincent de Paul at Paris and the Deaconesses at Kaiserwerth, and even acted as an assistant in each of these establishments. The devotion of the Sisters and the perfect order that reigned under their auspices excited her admiration but did not entirely satisfy her. Technical knowledge was urgently required in addition, and also freedom from the monastic trammels so hostile to

[1] THE LANCET, May 5th, 1900, p. 299.

[1] Les Gardes-Malades. Paris: Vigot Frères, 1901.

scientific progress. For nine years Florence Nightingale gave herself up wholly to the exhaustive study of her subject, which she systematically divided under three heads—the needs of the sick, the qualities and requirements of sick attendants, and the essentials of hospital construction. It is no wonder, therefore, that she should have proved herself capable of completely transforming the British ambulances in the Crimea and of thereby reducing the mortality from 60 to 2·21 per cent. A member of the French Academy[2] once ventured to say that it was owing to the advice of the chief medical officer of the French troops that the success of Florence Nightingale was due, but this statement is utterly and entirely unjustifiable. From the first it was demonstrable that the young English "lady in chief" could reorganise and manage hospitals after so improved a fashion that the renovated establishments became in reality refuges for the sick and wounded, and were no longer deserving of condemnation such as that which was pronounced by Dr. Uytterhœven who, on hearing of the death of 67,000 French soldiers while under treatment, felt constrained to exclaim: "These hospitals are but ante-chambers to the cemetery." But, great and glorious though it was, the work of Florence Nightingale in the Crimea is surpassed by her achievements in her own country, where she completely revolutionised the hospitals and infirmaries, opened up the nursing profession for ladies of gentle birth, and established schools for nurses. The fact that in the United Kingdom at the present time there are no less than 505 of these schools will serve to show the magnitude of the results which have attended on the labours of Florence Nightingale. The authors of "Les Gardes-Malades"—of whom one, it may be mentioned, is a medical woman—have paid due homage to the eminent lady whose "Notes on Hospitals" are still most valuable to the architect, the engineer, and the medical officer, but they make no mention of the statesman who gave effect to her recommendations and threw himself heart and soul into the work of sanitary reform. The name of Sidney Herbert, first Baron Herbert of Lea, should never be omitted when the history of sanitation is discussed.

URÆMIA AS A CAUSE OF ACUTE DELIRIUM.

URÆMIA has long been known to be a condition capable of producing slight cerebral disturbances such as temporary attacks of giddiness or momentary loss of speech or of consciousness. In the *Archives de Neurologie* for December Professor A. Cullere of Lyons refers to the recent view expounded by Dr. Carrièr at the Congress of French Alienists and Neurologists held at Limoges in August, when he presented a remarkable report on insanity of uræmic origin, showing that acute mental disorder may be the outcome of uræmic poisoning. Professor Cullere has recently had under observation two cases which appeared to confirm the above view and to throw light on this important question. Case 1.—The patient was a woman, aged 55 years, who was subject to hallucinations and delusions, under the influence of which she persistently refused food so that she had to be fed by the œsophageal tube. She was slightly febrile when she came under the care of Professor Cullere in April, 1897, and was suffering from a profuse and fœtid diarrhœa. Her condition was so serious that saline transfusion *(serum de Cheron)* was employed. Slight improvement resulted and her ideas, which hitherto were confused, gradually began to become clear. In May there was a recrudescence of symptoms with fever, delirium, and diarrhœa as before. She passed into a low typhoid condition, a bed-sore developed over the sacrum, and she died in a state of coma. The necropsy revealed the following conditions. The lungs were normal, the heart was slightly fatty, the kidneys were small as the result of atrophy, the cortical substance being congested, granular, and contracted, and weighing not more than 80 grammes. There was no macroscopic lesion of the cerebral hemispheres, but an unusual abundance of cerebro-spinal fluid was present in the skull. Professor Cullere considers that the attacks of acute delirium in this case were associated with the chronic nephritis which was in progress and that they were therefore of uræmic origin. The diarrhœa also, in combination with the other symptoms, probably indicated a uræmic condition of the system. Case 2.—The patient was a man, aged 41 years, with a family history of melancholia and suicidal propensities in both the maternal and paternal branches. He was of temperate habits. He became insane, the mental disorder taking the form of maniacal excitement, incoherence of speech, and religious utterances. He then passed into a condition of apathy with mutism and refused to take food. He was thin, pale, and haggard, with very fœtid breath and obstinate constipation. The pulse was soft and slow, the beats being 50 per minute or less. For several weeks his attitude and manner were those of katatonia, marked by contortions, grimaces, and persistent poses indicative of fear and repugnance. Four months later this state was succeeded by a melancholic phase with suicidal impulses. His insanity lasted 16 months, at the end of which time he began to improve and finally recovered. Nine years afterwards, in June, 1897, he had a fresh attack and was admitted under treatment with melancholia agitans and violent impulses to homicide and suicide. He refused food, became feverish, and passed into a state of prostration with restless muttering delirium, algidity, and coma ending in death. Anuria and frequent vomiting marked the later stages. The symptoms all pointed to uræmia. Professor Cullere believes that the katatonic symptoms with attitudes of ecstasy and catalepsy were due to toxæmia—a view supported by Kraepelin and other modern observers. Venesection and saline transfusion would thus seem to be indicated in grave cases.

[2] Maxime du Camp: La Croix-Rouge de France. Paris, 1892, p. 20.

SUPPLEMENT TO THE ANNUAL REPORT OF THE CHIEF INSPECTOR OF FACTORIES AND WORKSHOPS FOR THE YEAR 1900.

IN the annual report of the Factory Department of the Home Office for 1900 which was noticed in our columns some months ago[1] it was announced that a supplement dealing with the fourth and fifth annual returns of persons employed in factories in the United Kingdom would be issued at a later date. We have recently received a copy of this supplement, in which Dr B. A. Whitelegge points out that under Section 34 of the Act of 1895 the occupier of every factory and workshop was required to make each year a return of the persons employed, and three such series of returns for the United Kingdom have already been tabulated and published. It has been found, however, that the heavy and continuous labour of collecting and compiling an annual census of this magnitude not only fails to yield any results of commensurate value, but stands in the way of more practical application of the mass of material thus accumulated every year. Accordingly the statutory requirement has now been modified by the Factory and Workshop Act of 1901, and in future the return will be called for at intervals not exceeding three years. In dealing with the fourth and fifth annual returns of employment in 1898 and 1899 it was decided to combine them and to narrow the field and to increase the detail in directions which will be helpful in

[1] THE LANCET, Sept. 28th (p. 868), Oct. 12th (p. 908), and Oct. 26th (p. 1145), 1901.

administration of the Acts. A distinction is drawn for the first time between those employés who are under and those who are over 14 years of age. It thus appears that while in textile factories the former are far outnumbered by the "half-timers" under 14 years of age, in non-textile factories the balance inclines so far in the other direction that, taking both classes of factories together, more than half of the persons under 14 years of age are employed full time. The total number of returns and also the total number of persons employed in 1898–99 were greater than in any of the preceding years. The advance was relatively greatest in Scotland and least in Ireland, while in absolute increase England and Wales head the list. As regards textile industries as a whole, the present return compared with that for 1897 shows a decrease in the numbers employed in each of the three main divisions of the United Kingdom. In non-textile factories there was an increase in each of the age- and sex-groups except female "half-timers." This increase refers mostly to gas factories, electricity-generating stations, sawmills, tanneries, quarries, glass factories, and foundries. In regard, however, to the industries in which the galvanising and finishing of metals are concerned the better separation of departments in recent occupiers' returns has to be taken into account. There was a decrease only under the heads of flax-scutching, rubber, leather, ivory, bone, shell, and jet.

DANGEROUS CIRCULARS.

IN commenting upon the methods adopted by certain people in selling shoddy jewellery *Truth* recently referred to the practice of leaving handbills from door to door, the advertiser calling for them after a certain lapse of time. That this is not an isolated instance of a reprehensible method of advertising we have proof in the fact that a few weeks ago we found in a letter-box a ragshop circular half of which was soaked in grease and the other half covered with dirty finger marks. It was subsequently called for. We have also in our possession the circular of a marine stores dealer, a term which the wording of the circular shows to be synonymous with "ragshop keeper," bearing the words, "Please show this to the Master or Mistress and return it only to ——— when he calls." We do not state positively that disease has been spread by this practice, but at a time when small-pox and other diseases of an infectious nature are prevalent no stone should be left unturned in seeking to eliminate every possible cause of infection. Such handbills should be burnt as soon as they are found, and the man when he returns should be told that this has been done. Medical men might do a great deal by warning their patients against the danger of returning these handbills, especially when there is illness in a house, and if the measure which we have suggested be adopted it will generally be found to be effective.

MEDICAL PRACTITIONERS AND THE SALE OF POISONS.

A LETTER which appears in another column from a correspondent signing himself "Vulneratus" sounds, we think, an unnecessary alarm. The recently passed regulation of the General Medical Council refers, so far as we understand it, to "doctors' shops" into which any member of the public can go and buy two pennyworth of laudanum or other scheduled poison. "Vulneratus," however, seems to think that it applies to medicines prescribed by medical men. The law for the sale of poisons is laid down in Section 17 of the Pharmacy Act of 1868, but in the Pharmacy Amendment Act of 1869 it is laid down in Section 3 that "nothing contained in Section 17 of the said recited Act shall apply to any medicine supplied by a legally qualified medical practitioner to his patient or dispensed by any person registered under the said Act, provided such medicine be distinctly labeled with the name and address of the seller and the ingredients thereof be entered, with the name of the person to whom it is sold or delivered, in a book to be kept by the seller for that purpose." Therefore, to our minds "Vulneratus," or any other qualified medical man, is at perfect liberty to sell or to deliver medicines to his patients containing scheduled poisons, provided that he labels the bottles, or pots, or packages with his name and address. But the Act, we take it, forbids a medical man or anyone else not registered under the Pharmacy Act to keep a shop and to supply scheduled poisons to anyone who asks for them other than on presentation of a prescription duly signed by a qualified medical man. It will be seen from the report of the meeting of the Glasgow Southern Medical Society which appears at p. 29, that the society is angry with the General Medical Council. But according to the Pharmacy Acts the Council appears to have been legally right in its resolution.

TRAUMATOL IN THE TREATMENT OF SUPPURATIVE PROCTITIS.

IN the *Gazette des Hôpitaux* of Nov. 14th, 1901, M. Suzor calls attention to the value of traumatol in the treatment of suppurative proctitis. He has used this drug for several years in the dressing of wounds; it is less odorous than iodoform and also appears to have the advantage of superiority in drying up purulent secretion and hastening cicatrisation. He reports two cases in which iodoform failed and traumatol brought about rapid cure. In one a woman, aged 36 years, who was addicted to morphia, suffered from obstinate constipation which had caused rectal irritation and for more than a year profuse suppuration. Treatment consisted in various antiseptic douches followed by iodoform suppositories. Only diminution in the suppuration resulted. Traumatol powder, about a gramme, was insufflated twice a day after administering a large enema. The result was remarkable: complete recovery ensued in eight days. In the second case a man, aged 35 years, had suppurative proctitis with anal fistula. The proctitis persisted after the operation for, and relief of, the fistula. Traumatol suppositories were used, but the result was imperfect. After eight days insufflations of traumatol powder were used and the suppuration disappeared in six days.

THE MOTOR AND THE MICROBE.

WE ordinarily count amongst micro-organisms friends as well as foes, and the former are probably in the majority. After all, we know but a few microbes which are specifically disease-producing, while we know of an enormous number which are concerned in the great economic processes of nature, working apparently in the interests of nature's higher creatures. Though a very microscopic entity the microbe possesses enormous powers consistent with its property of growing and multiplying itself infinitely. The scavenging of the world is thus the effectual work of countless microbes. The idea of microbes, however, as a source of motive power appears at first sight preposterous, but a little reflection will show that indirectly even for this purpose micro-organisms may be very intimately concerned. It is well known that if it were not for its powerful action as a drug and poison alcohol would be a cheap commodity. Sugars and starches grow in immense abundance in almost all the civilised countries in the world, and it is but a short step to convert these into alcohol by fermentation, a process due to the agency of micro-organisms. All cereals would thus serve and the roots containing sugar, such as the maple, and even fruit such as the grape, in a time of plenty might easily be a cheap source of spirit. Alcohol possesses excellent calorific value, it burns with a hot flame, it is easily

vapourised, and it yields, as a rule, no deleterious products of partial combustion as does oil or coal. It is thus well adapted as a fuel for the motor-car and already motor-cars are being run with alcohol and with very encouraging results. The drawback to its use is, of course, its expense, but some effort to reduce this has been made with success by getting a concession from the Excise (at any rate, in France) to withdraw the high duty, which is done if it can be shown that the spirit has been rendered undrinkable. Such alcohol is known as "denatured" spirit, the addition of some highly nauseous compound making it absolutely unfit to drink whilst not interfering with its properties for the purposes of a fuel. Similarly denatured alcohol is being employed in lamps for the production of an incandescent light by the heating of the Welsbach mantle in the spirit flame. It is, therefore, not chimerical entirely to suggest that the day may come when we may not only owe our increased facilities of locomotion to the much abused microbe, but some of our effectual means of artificial illumination also.

EXAMINATION OF THE BLOOD IN APPENDICITIS.

EXAMINATION of the blood does not appear to be clinically utilised in this country in cases of appendicitis. The *American Journal of the Medical Sciences* for November, 1901, contains an important paper on the subject by Dr. J. C. Da Costa, jun., based on the examination of 118 cases treated by operation in the German Hospital, Philadelphia. Of these 38, or 32·2 per cent., were unattended by suppuration, while in the remaining cases this condition was present with or without further inflammatory changes. In practically every case of appendicitis the hæmoglobin in the blood is diminished; the average loss is about 30 per cent. In about 10 per cent. of the cases the loss reaches 50 per cent., and in 2·5 per cent. 60 per cent. or more. The diminution in the erythrocytes is, save in exceptional cases, inconspicuous. The average loss in 38 catarrhal cases was 16·2 per cent. and in 80 suppurative cases 11·9 per cent. The degree of anæmia gives no help in diagnosing catarrhal appendicitis from suppurative. The hæmoglobin value of the corpuscles in the majority of cases is slightly subnormal —about 0·7 or 0·8 per cent. of the normal. The fluctuations in the leucocytes are the most important features in the examination of the blood. In the catarrhal and interstitial forms of appendicitis without abscess formation the number of leucocytes usually does not exceed normal (10,000 per cubic millimetre) and is occasionally subnormal, but sometimes counts of 12,000, 15,000, or more may be made. But in cases of abscess, gangrene, or general peritonitis well-marked leucocytosis is usually present. The majority of appendicular abscesses raise the count to from 15,000 to 20,000 or more per cubic millimetre. The average was 17,450—nearly double that of the catarrhal cases. But if the abscess is so effectually walled off that little or no toxic absorption takes place such an increase may not occur. On the other hand, in profound sepsis, when the patient is so poisoned that reaction is prevented, leucocytosis may be absent and even leucopenia may occur. But such a condition is rare; in only two out of Dr. Da Costa's 12 fatal cases was well-defined leucocytosis absent. In these the counts gave 6000 and 11,200 respectively. In the other 10 the numbers ranged from 14,200 to 58,500, and averaged 19,400. The degree of leucocytosis as determined by a single examination cannot be relied upon in prognosis. If, however, by repeated examinations a progressive increase in the number of leucocytes is detected it may be concluded that the collection of pus has become more extensive or that general peritonitis has been excited. Such an accident was heralded in three cases by an increase varying from 6600 to 14,000 cells to the cubic millimetre in excess of the number previously counted. Perforation is usually accompanied by an abrupt rise in the number of leucocytes, but in debilitated subjects this may be absent or even a sudden decrease may occur. In the few cases of leucocytosis in which differential counts were made the increase was found to be chiefly due to absolute and relative increase of the polynuclear neutrophiles, the lymphocytes, large mononuclear forms, and the eosinophiles being relatively diminished. Dr. Da Costa concludes that leucocyte counts between 10,000 and 15,000 or 17,000 cannot be depended upon in diagnosing the form of appendicitis since they may be found in catarrhal cases, but that counts of 20,000 or more almost invariably indicate the presence of pus, gangrene, or general peritonitis. Making a "conservative estimate" he finds that in one out of four cases of appendicular abscess the diagnosis is justified by the leucocyte count. In cases of operation complete emptying of the abscess is followed within a few days by a decline to normal of the number of leucocytes, if recovery is uneventful; persistence of leucocytosis after the third or fourth day following operation may usually be attributed to undrained pockets containing pus or to general peritonitis, or to both. Hence the value of a daily leucocyte count after operation. As a means of diagnosing appendicitis from the conditions most closely resembling it—ovarian abscess, pyosalpinx, ectopic pregnancy, perinephritic abscess, hepatic abscess, and malignant disease of the cæcum; examination of the blood is useless, for all the conditions just named give rise to similar blood changes. But if the diagnosis lie between appendicitis and typhoid fever the former is suggested by the presence of leucocytosis, which occurs in the latter only when perforation takes place.[1] Leucocytosis also excludes such non-inflammatory conditions as simple enteralgia, lead colic, ovarian neuralgia, ovarian cyst, and moveable kidney.

THE LONDON LICENTIATES' AND MEMBERS' SOCIETY.

THE constitution and aims of the London Licentiates' and Members' Society have already been described in THE LANCET (Nov. 23rd, p. 1425), and we have considered the chances of successful effort on its part. The society is at any rate determined not to fail for want of trying, and we hope that the next step will be fruitful. This is to be a petition to the Royal College of Physicians of London and the Royal College of Surgeons of England, begging them either to approach the governing body of the new University of London, or some other British University, with a view to obtain for the Licentiates and Members the privilege to offer themselves as candidates for the final examination for a degree in medicine, or, on the other hand, begging the English Royal Colleges to take some other independent step to remove the disabilities under which their petitioners labour. At present this petition has been drawn up by the committee of the society and is to be presented to a general meeting on Jan. 22nd. The committee base the petition upon these grounds: that—

> Your petitioners find that in the practice of their profession, through inability to style and call themselves "Dr." they do labour under a very great disadvantage in comparison with the graduates of the universities of Scotland, Ireland, and the provinces of England and also in comparison with the licentiates of certain of the examining bodies; and whereas your petitioners feel that they have gone through a course of professional study which is as prolonged and thorough as that laid down for the above graduates and licentiates and have passed examinations which are equal in severity and strictness to those through which the above graduates and licentiates have passed; and whereas your petitioners feel that it is to the interest of the whole medical profession that the Royal College of Physicians of London, and the Royal College of Surgeons of England, should continue to attract students to the metropolitan schools; and whereas your petitioners think that the Royal Colleges can only continue to attract students to the London schools by removing the above-mentioned disabilities—

therefore they put forward this petition. Without going at length into the whole question of the claim to a university degree of Licentiates and Members belonging to no university, a question in the present instance with strong

[1] THE LANCET, May 18th, 1901, p. 1417.

pros and *cons*, no one can fail to recognise that there is strength in the argument that the number of students in the London schools is affected by the fact that no medical prefix is obtained by passing the ordeal of the Conjoint Board. If the London Licentiates' and Members' Society can *prove* that the diminishing number of medical students at the metropolitan schools is really due, or largely due, to the fact that the title "Dr." is not obtainable through the portals by which the vast majority of London students enter the profession, then we think that the society will have a very powerful lever with which to stir the rooted convictions of the Royal Colleges. In the meantime we cannot help doubting whether the members of the society do not underrate the value of their own diplomas in the public eye.

THE DISTRIBUTION OF PLAGUE.

A TELEGRAM from the Governor of the Cape of Good Hope received at the Colonial Office on Dec. 24th, 1901, states that for the week ending Dec. 21st the cases of plague in the Cape Peninsula numbered 0. The cases at Port Elizabeth numbered 2, both in natives. The cases at Mossel Bay and at all other places numbered 0. The area of infection remains unchanged. The cases of plague in persons under naval and military control numbered 1, that of a native in the remount camp at Port Elizabeth. As regards the Mauritius, a telegram from the Governor received at the Colonial Office on Dec. 27th, 1901, states that for the week ending Dec. 26th there were 38 cases of bubonic plague, of which 23 proved fatal.

CORTICAL LOCALISATION IN THE ANTHROPOID APES.

ALMOST all the experimental evidence with regard to the localisation of the cortical centres has been obtained from observations on the monkey and lower animals, and except for the work of Beevor and Horsley upon the orang-outang no observations have been made upon the anthropoid apes. Sherrington and Grünbaum, however, as the result of some more extensive work on the same subject, have recently in part confirmed and in part modified our previous knowledge. The chief points on which these two sets of observers differ are that Sherrington and Grünbaum found that all the excitable cortex lay in front of the Rolandic fissure and no movement could be produced by stimulation of the area immediately behind that fissure, whereas Beevor and Horsley had shown that excitable centres for the elevation of the upper lip, for contraction of the opposite and upper half of the orbicularis, and for the thumb and index fingers existed in that region. Beevor and Horsley had also pointed out that small areas of inexcitable cortex existed between the excitable centres. This observation Sherrington and Grünbaum failed to confirm, and they could find no such areas in the region of the excitable cortex. They also were able to map out a centre for movements of the trunk between the arm and leg area, and, further, to localise centres for the perineal movements in proximity to the toe centre. Sherrington and Grünbaum failed to confirm the observation of Beevor and Horsley with regard to the centre for turning the head and eyes to the opposite side situated below the genu at the junction of the middle and lower thirds of the fissure of Rolando, but they fully confirmed the observation with regard to the centre for the same movement of the eyes situated far forward in the frontal region and separated from the excitable cortex by an inexcitable area. Another point in this research is suggested by the fact that in 1892 Hughlings Jackson published a "Neurological Fragment" in which he suggested on hypothetical grounds that in man the erector spinæ muscle is supplied, through the intermediation of Türck's column, by the homolateral cerebral hemisphere. The hypothesis received support from certain cases of hemiplegia in which he had observed some very slight weakness of that muscle on the side of the cerebral lesion, but it was pointed out that great difficulties attended a correct estimate of the power of that muscle. The recent work of Sherrington and Grünbaum has brought this question again into relief. Their discovery of a well-marked ventral pyramidal tract in the anthropoid apes, considered in association with their erect posture is of peculiar interest in view of the fact that in all the lower monkeys and other vertebrates such a tract is entirely absent or extremely ill-defined. Sherrington and Grünbaum, by excising the hand area in a chimpanzee, produced a temporary palsy, not only of the hand, but of the shoulder of the opposite side, and on examining the spinal cord degeneration was found in Türck's column as far as the upper lumbar region. This result is sufficiently striking when we remember the close apposition of the upper arm area to the newly discovered trunk area and the probable overlapping of all the different areas in the excitable cortex. It is unfortunate that the difficulties attending the examination of the muscles of the back are not diminished by substituting the anthropoid ape for a human hemiplegic.

OUR LAX DEATH REGISTRATION LAWS.

AN inquest held by Mr. John Troutbeck on Dec. 30th, 1901, touching the circumstances attending the death of Patience Glossop Harris, trading as Auguste et Cie, theatrical costumiers, throws once more into strong relief the slovenly way in which deaths are registered in this country. As in all probability further action will be taken as regards certainly one person concerned, and probably as regards two, we can do but little more than mention the facts which came out in evidence. These are as follows. Miss Harris was much addicted to alcohol; she used to drink brandy heavily, together with a man named Price. This man was supported by the deceased and was also a beneficiary under her will to the extent of an annuity of £104, besides some legacies, jewels, furniture, and other bequests. Miss Harris died on Dec. 26th and was attended up to the day of her death by an unqualified practitioner named William Stanley, of 1, Portsmouth-street, Lincoln's Inn-fields, W.C. He said that he had attended Miss Harris for seven or eight years; he declined to say whether he was paid for his services, and although he stated that he had recommended Miss Harris to call in another medical attendant he declined to say whom he suggested should be called in. He gave a certificate of death from cirrhosis of the liver and exhaustion. Dr. G. A. Hamerton, divisional police surgeon at Bow-street, gave evidence of what he found at the post-mortem examination. There were all the signs of chronic alcoholism and death had resulted from cerebral hæmorrhage. Edward Cox, registrar of births and deaths for the Strand district, said that he had received Stanley's certificate. He had known Stanley for many years and considered that the certificate was perfectly in order according to the Registrar-General's regulations. The jury returned a verdict in accordance with the medical evidence of Dr. Hamerton and added a rider to the effect that the attention of the Registrar-General should be called to the lax way in which the certificates of unqualified medical men were accepted as exemplified in this case. The coroner, in his summing up, pointed out how such cases afforded openings for crime and we cordially agree with him. Here is the case of a woman making a will, under which the chief beneficiary is a man who drinks with her. She is attended by an ignorant, unqualified person, who gives a certificate which is only part of the truth, which certificate is accepted, and, we are afraid, lawfully accepted, by the

registrar. It is notorious that our system of death registration is disgraceful. Even when a medical man gives a certificate he is not required to certify the *fact* of death. When no qualified medical practitioner has attended, an unqualified practitioner, or someone present at the death, or the occupier of the house, or if the occupier be deceased some other inmate may give information, and such information is too often accepted, though the registrar can, if he likes, refuse a certificate for burial.

MUNICIPAL BACTERIOLOGISTS.

THE town of Cambridge has within the last three months suffered from no less than three mild epidemics of diphtheria. The municipality was greatly helped in dealing with this epidemic by Dr. Louis Cobbett of the University Pathological Laboratory, who acted as consulting pathologist. At a special meeting of the Cambridge Borough Council held on Dec. 19th the Public Health Committee submitted a report stating that as in future the services of Dr. Cobbett would not be available they recommended that Dr. Graham Smith should be appointed bacteriologist to the council for two years at a minimum salary of £100 per annum with an allowance of £20 per annum for a servant and for any reasonable out-of-pocket expenses. The chairman of the Public Health Committee, Alderman T. Hyde Hills, M.R.C.S. Eng., moved the adoption of the report and after some opposition, an amendment being lost by 13 votes to 21, the report was adopted. We warmly congratulate the municipal authorities of Cambridge upon the very sensible step which they have taken. They are among the earliest, although not the very first, to appoint a municipal bacteriologist, for the pioneer in this movement was, we believe, the city of Liverpool which some little time ago appointed Dr. Rubert Boyce as city bacteriologist. In no disease perhaps so much as in diphtheria is early diagnosis necessary to minimise the spread of infection, and it is fitting that a municipality so intimately bound up with a great seat of learning as is the town of Cambridge should have decided to profit by the latest researches of science as this appointment shadows forth.

THE DISSEMINATION OF INFECTIOUS DISEASE.

IN another column we publish a letter under the above heading which, so far as we can say from the facts before us, reveals a course of action by no means creditable to the hospital in question. We may say that we have no knowledge to which of the metropolitan hospitals our correspondent refers, but to recapitulate the alleged facts they are as follows. A woman brought her sick child to the hospital where the diagnosis was made of scarlet fever. The hospital ambulance thereupon took the mother and child to their home which consisted of one room inhabited by three other children, the room being in a house with many other occupants. The medical officer of health was communicated with and in 24 hours or so the patient was removed. If these facts be correctly stated we cannot think that the hospital authorities took the wisest course. Every hospital should have an isolation waiting-room—and, as a matter of fact, the procedure at many, if not all, of the metropolitan hospitals is to detain an infectious case, to communicate with the Metropolitan Asylums Board, to keep the patient in the isolation-room while waiting, and in about an hour the Asylums Board ambulance arrives and removes the patient. We cannot think why some such sort of programme was not carried out in the case mentioned by our correspondent. Even if the hospital in question possessed no isolation-room it would have done but little harm for the patient to wait in the courtyard or somewhere on the premises, but to send the child back to its home—a home with every facility for the spread of disease—was futile. The hospital ambulance would have been far better employed in taking the child to the fever hospital.

COUNTY MEDICAL OFFICERS IN SCOTLAND AND THE GOVERNMENT GRANT.

A LETTER has been sent by the Local Government Board of Scotland to county councils in that division of the kingdom with reference to the conditions under which a county council will in future be entitled to obtain a share of the £15,000 contributed under the Local Taxation (Customs and Excise) Act, 1890, towards the cost of medical officers and sanitary inspectors. The new conditions come into immediate effect and are—(1) where the county council shall appoint a medical officer with permission to engage in *general* private practice no share of the grant will be allowed; and (2) in any future case of a county medical officer being permitted to engage in *consulting* practice no share of the grant will be allowed unless the Secretary for Scotland is satisfied that the circumstances are exceptional and justify the relaxation of the general rule.

THE NEW DIRECTOR-GENERAL OF THE ARMY MEDICAL SERVICE.

IT is needless to say that at the present time the direction of the Army Medical Service requires the presence of a judicious, tactful, and strong man at the helm. From all we know of Surgeon-General W. Taylor's antecedents and of the opinion which is generally entertained in regard to him we think that the Army Medical Service is to be congratulated on his being selected for the post. That Surgeon-General Taylor is undertaking an arduous task and entering upon his appointment at a critical time in the history of the department goes without saying. Despite the difficulties which will have to be encountered in inaugurating and administering a new order of things the position is nevertheless not without some compensatory advantages which did not fall to the lot of his predecessor in office. We can only trust that any new occupant of the post may be able to turn these to account. The institution of an Advisory Board will keep the Director-General in close touch with the medical schools and profession and will enable him to gauge their feeling and opinion and on occasion to add the weight of them to that of his own. With a seat on the War Office Council, under the presidency of the Secretary of State for War, and on the Army Board, presided over by the Commander-in-Chief, he will, at any rate, have the assurance that subjects affecting his department are not discussed and decided upon in his absence. We heartily wish Surgeon-General Taylor a successful career on entering upon his new duties in the direction of the Army Medical Department.

KISSING THE BOOK.

WE have over and over again in these columns pointed out the dangers of the uncleanly habit of kissing the book of the Gospels when taking an oath. Over and over again, too, have we pointed out that by Section 5 of the Oaths Act of 1888 if any witness desires to swear with uplifted hand in the form and manner in which an oath is usually administered in Scotland he shall be permitted to do so, and the oath shall be administered to him in such form and manner without further question. Many persons are ignorant of this relieving clause, nay, even county-court judges have refused to allow witnesses to be sworn in this manner.[1] His Honour Judge Emden[2] and Mr. Justice Byrne have both called attention to the clause, and the former judge has

[1] THE LANCET, July 17th, 1897, p. 155.
[2] THE LANCET, Jan. 18th, 1896, p. 120.

caused notices to its effect to be posted in conspicuous places in his court. The Attorney-General stated in Parliament that such a notice was posted in every court,[3] if so, we cannot say that they are conspicuous. We do not believe that there is any legal compulsion for a witness to kiss the book at all, and we think it is simply a custom which has grown up no one knows how. The old form of oath was to lay the hand upon the book and to say, "So help me God and these Holy Evangels." This form might well be restored, or if such an appeal were to give offence to Scotsmen, why should not the form and manner in which an oath is usually administered in Scotland be made the form also usually administered in England? The Government might well bring in a Bill to this effect when Parliament meets. But in the meantime every witness, and more especially every medical witness, should exercise his undoubted right and demand to be sworn in the Scotch fashion.

FEES FOR INSURANCE EXAMINATIONS.

IN our issue of Dec. 14th, 1901, p. 1710, we published a letter from a correspondent protesting against the amount of work to be done in, and the lowness of the fees paid for, medical examinations for insurance in the Century Insurance Company, Limited. Our correspondent made certain definite statements, all of which, with one exception, Mr. Henry Brown, the manager of the Century Insurance Company, Limited, directly traverses in a letter which appeared in our issue of Dec. 21st, 1901, p. 1776. The one exception is the fee, which is allowed to be 10*s.* 6*d.* Mr. Brown refers to the fact that candidates for admission to sickness benefit societies are frequently examined for less than 10*s.* 6*d.*, and that a fee of one guinea, "of course, would be impossible." We do not see any impossibility about it. Examination of a patient for life insurance is, or should be, a very responsible matter for the patient, for the examining physician, and for the company. On an average a properly conducted examination takes at least 20 minutes and may take a great deal longer. Mr. Brown and others like him seem to think that a medical man's time is of no value to him and that we should be thankful for the smallest crumbs from the tables of the wealthy. The Century Insurance Company, Limited, is, we take it, in no way a philanthropic body but a purely commercial one. Then it must pay for good work.

SMALL-POX IN LONDON.

THE number of cases of small-pox in London shows no diminution. On Saturday, Dec. 28th, 1901, there were 40 fresh cases notified and removed; on Sunday, Dec. 29th, there were 30 fresh cases; on Monday, Dec. 30th, there were 40 fresh cases; on Tuesday, Dec. 31st, there were 42 fresh cases; and on Wednesday, Jan. 1st, 1902, there were 39 fresh cases.

THE London (Royal Free Hospital) School of Medicine for Women offers in May a Stuart Mill Scholarship of the value of £30 a year for four years. The holder of the scholarship is required to take her entire medical course at the above school and to enter into a legal agreement to practise in India under the Countess of Dufferin's fund on the completion of her course of study. Applications should be in the hands of the secretary of the school, 8, Hunter-street, W.C., by Feb. 1st.

THE Harben Lectures of the Royal Institute of Public Health will be given in King's College, London, on Jan. 13th, 14th, and 15th, at 5 P.M., by Professor Max Gruber, who has taken as his subject "The Antibodies of the Blood." Professor Gruber, who is Professor of Hygiene in the University of Vienna, will lecture in English, and all interested are invited to attend.

AS we have previously announced the Prince of Wales's Hospital Fund for London will in future bear the title of King Edward's Hospital Fund for London. The work of the Fund having greatly increased and the working staff in consequence being greater, permanent offices have been taken at 81, Cheapside, London, E.C.

[3] THE LANCET, July 17th, 1897, p. 175.

Pharmacological Notes.

THE VALUE OF THE LIQUORICE LOZENGE BASIS.

SIR JAMES SAWYER[1] has recently advocated a more liberal use of medicated lozenges in many affections of the mouth and fauces, as well as in some other morbid conditions. He also calls attention to a basis which he has found useful in his own practice—viz., the pasta glycyrrhizæ alba, or *pâte de réglisse blanche*. It is prepared like the well-known pasta althææ or *pâte de guimauve* of the French Codex, with the difference that liquorice root replaces marsh-mallow root. According to Beasley's "Pocket Formulary" the liquorice paste is prepared by dissolving gum acacia and sugar in an infusion of liquorice root, evaporating to the thickness of honey, then adding white of egg and orange-flower water, and finally continuing the evaporation until the paste is so firm as not to adhere to the hands. This paste is recommended as the basis of such lozenges as the physician may wish to prescribe in particular cases, as the active drugs may be readily combined with it by the dispenser. For example, if borax is prescribed as a local sub-astringent, detergent or antiseptic, it may be mixed with the liquorice paste in the proportion of two grains of borax to 10 grains of paste, forming a lozenge which is to be slowly sucked. When freshly made the lozenge dissolves slowly and well in the mouth and is tough enough to be in part a masticatory. This is a distinct advantage, since lozenges are generally intended to exert a local influence.

LIQUORICE AND MARSH-MALLOW COMPARED.

The excellent suggestion of Sir James Sawyer referred to in the preceding paragraph raises the question of the therapeutic value and chemical composition of the two drugs, liquorice and marsh-mallow. The former contains an acid principle, to which the names "glycyrrhizin" and "glycyrrhizic acid" have been given, in varying proportions up to about 6 per cent.; it has a sweet taste. Liquorice root also contains a sugar and the substance asparagin. It has been used to cover the taste of nauseous medicines and is a well-known demulcent. According to Sir T. Lauder Brunton, it is particularly useful as a stimulating expectorant and when there is violent cough due to irritation of the pharynx and upper part of the respiratory passages. The same authority states that marsh-mallow root is a useful demulcent in sore-throat, coughs, or intestinal irritation. It is probable, however, that of the two drugs the marsh-mallow root is more valuable as a demulcent on account of the large percentage of mucilage that it contains, amounting to about one-fourth of its weight. It resembles liquorice in containing asparagin, and it is said[2] that the proneness of marsh-mallow root to become rancid if kept long is due to the decomposition of asparagin and the consequent formation of butyric acid. The absence from marsh-mallow root of a principle analogous to the glycyrrhizin of liquorice root is noteworthy, and on this account the marsh-mallow root is likely to be more generally tolerated in a lozenge basis, since the characteristic taste of liquorice is not universally tolerated.

THE VARIABLE CAPACITIES OF DOMESTIC SPOONS.

It has long been recognised that the reputed capacity of spoons in domestic use cannot be depended on for medicinal use when accurate dosage is required. In this connexion C. B. Lowe[3] points out that teaspoons may vary in

[1] Brit. Med. Jour., Nov. 30th, 1901.
[2] Pharmacographia, p. 94.
[3] American Journal of Pharmacy, vol. lxxiii., p. 593.

capacity from 75 to 130 minims. Inasmuch as the teaspoon is supposed to hold 60 minims this variation is considerable and might lead to serious consequences. Of the dessertspoons examined two contained three fluid drachms and a third nearly four fluid drachms. In like manner tablespoons varied in capacity from four to six fluid drachms. Dessertspoons should, of course, hold two fluid drachms and tablespoons four fluid drachms. Hence these domestic spoons are totally untrustworthy for medicinal use. Since in actual practice few persons fill spoons perfectly full with medicinal liquids, but only approximately so, it follows that by the use of the average teaspoon (containing 107 minims) the patient would get about 50 per cent. more than the theoretical quantity. The average dessert- and tablespoon would give about 25 per cent. more. As the teaspoon is the measure by which potent liquid medicines are frequently administered this huge increase in capacity deserves attention. Thus, to take an example, a physician might think that he was giving the one-sixteenth part of a grain of strychnine, whereas by the average teaspoon the patient would get $\frac{3}{11}$, or nearly one-tenth, of a grain. Or four minims of diluted hydrocyanic acid might be prescribed as a dose, but the patient would get six minims. The conclusion to be drawn is self-evident—viz., that domestic spoons vary so much in capacity that it is never safe to prescribe solutions of powerful drugs to be measured by them; as a result of this the use of properly graduated glass medicine tumblers which can be obtained accurately marked should be insisted upon.

KING EDWARD'S HOSPITAL FUND FOR LONDON.

A MEETING of the Prince of Wales's Hospital Fund for London (now King Edward's Hospital Fund for London) was held at York House, St. James's Palace, the PRINCE OF WALES being in the chair.

The financial report presented by Mr. J. W. CRAGGS was as follows:—

Financial Statement up to Dec. 16th, 1901.

	£	s.	d.
Annual subscriptions	25,655	12	8
Donations and undefined contributions	8,340	2	5
Legacies	5,000	0	0
Annual grant from the trustees of the London Parochial Charities (for the Maintenance of Convalescent Hospitals)	1,000	0	0
Contribution from the League of Mercy	7,000	0	0
Income from investments	5,743	7	10
Sums given by donors to be invested as capital	29	14	0
Subscriptions paid in advance for 1902	7	13	0
Special grant 1900 returned by the Middlesex Hospital	250	0	0
Making the total receipts	53,026	9	11
Deduct the expenditure to date	1,530	1	6
Leaves a net amount up to the present of	51,496	8	5
The balance of funds from last year is	174,225	3	7
Making a grand total of	225,721	12	0

Mr. CRAGGS said it should be explained that these figures were wholly exclusive of the sums received for the coronation gift. The proposed awards to the hospitals would absorb all the sums collected this year without entrenching on the reserve fund.

The Chairman of the Executive Committee, Mr. H. C. SMITH, presented the report of the committee which stated that:—

Considering the many demands made on the public in consequence of the protraction of the war, it is a matter of great gratification to the Executive Committee that the total receipts up to Dec. 16th have again shown an increase, amounting to about £3000 over those of last year up to Dec. 16th. The figures therefore show continuous progress. Excluding the initial start in the Jubilee year, the receipts are:—For 1898, £39,272; for 1899, £48,536; for 1900, £51,549; for 1901, £52,769 (up to Dec. 16th). It has been difficult to estimate the total amount available for distribution this year, as the accounts for the year are not yet complete and the sum to be received from the League of Mercy was only known on Dec. 16th. Your committee are pleased to report the increasing success of the League of Mercy who have this year contributed £7000, being an increase of £1000 on last year's contribution.

The sum recommended for division among hospitals is £50,000, being £1000 more than last year, and the committee believe that this sum will be obtained without drawing on the reserve. No appeals were made during the first part of the year, but in the autumn your committee, feeling that the approaching coronation was a suitable occasion on which to make an effort to complete the scheme of the Royal founder and to present to His Majesty the King as a coronation gift the means of freeing the London hospitals, recommended the re-appointment of an organising committee for the coronation gift, under the chairmanship of Lord Duncannon. That committee is issuing various appeals. The reports of the Hospitals Distribution Committee and of the Convalescent Homes Committee are appended. The grants recommended to hospitals this year amount to £50,000, making, with the £1000 given by the London Parochial Charities to be distributed among convalescent homes, £51,000 in all. The question of the heavy rating of hospitals is still engaging the attention of your committee. Every hospital was visited and reported on by two members of the committee, of whom one was an expert. The work of the visitors proved most valuable and the thanks of your Royal Highness, as President, have already been conveyed to them. The trustees of the Frank James Memorial Home have offered to the Fund the gift of the home at Cowes, supplemented by a most generous endowment by Mr. Arthur James and Mr. William James of £10,000 to be allocated to a London hospital as a convalescent home.

The following is the report of the Hospitals Distribution Committee:—

The Visiting Committee have visited and reported on 85 hospitals and the Distribution Committee recommend awards to 79. Of the six left out, one is an excellent institution not in need of assistance this year; the other five require either reconstruction or rebuilding and the committee hope that they will put themselves in such a position that their claims may be able to be more favourably considered next year. The committee recommend this year the reopening of 34 beds now closed for want of funds, making a total of 321 beds reopened and maintained by this Fund since its commencement in 1897. In the institutions which have still got closed beds there are many instances where the wards returned as closed are either used for paying patients or for nurses' accommodation, and some hospitals are so deeply in debt to their tradesmen and bankers that even if they had further help from the Fund it is questionable whether it would be desirable for them to incur more liabilities. The committee could have employed another £10,000 this year in the reopening of closed beds had the requisite money been at their disposal. The numbers of beds reopened in the different years are as follows: 1897, 185; 1898, 57; 1899, 45; 1900, 0; 1901, 34; total, 321.

The following is a list of annual grants and donations for 1901 with the comments of the Distribution Committee:—

Alexandra Hospital for Children, £500; Belgrave Hospital, £500; Bolingbroke Hospital, £500; British Lying-in Hospital, £300—£200 for Nurses' Home; Cancer Hospital, £200; Central London Ophthalmic Hospital, £100 towards rebuilding; Central London Throat and Ear Hospital, £150 towards building fund; Charing-cross Hospital, £1500 towards rebuilding fund; Chelsea Hospital for Women, £350; Cheyne Hospital, £100 towards extension fund; City of London Hospital for Diseases of the Chest, Victoria-park, E., £1500, £100—£1500 annual to support 25 beds reopened by this Fund, £100 towards Nurses' Home Building Fund; City Orthopædic Hospital, £250, £50—£250 annual to maintain 20 beds reopened by this Fund; City of London Lying-in Hospital, £100; Clapham Maternity Hospital, £75 towards improving laundry; Cottage Hospital, Canning Town, £100; Dental Hospital, £10); Dreadnought Hospital, £500, £500—£500 annual to meet deficiency, £500 for Tropical Diseases Department; East End Mothers' Home, £200—special to make separate labour ward on each floor; East London Hospital, £750—£250 towards new laundry; Establishment for Gentlewomen, £75; Evelina Hospital (an excellent institution); French Hospital, £100 towards improving operating theatre; General Lying-in Hospital, £200; German Hospital, £150; Gordon Fistula Hospital, £50 towards repainting; Great Northern Central Hospital, £750, £250—£750 annual to support 15 beds reopened by this fund; Grosvenor Hospital for Women and Children, £200; Guy's Hospital, £5000—£5000 annual to maintain 114 beds reopened; Hampstead Hospital, £250; Hospital for Consumption, £500; Hospital for Diseases of the Throat, £100 in reduction of debt; Hospital for Epilepsy and Paralysis, £250—building fund; Hospital for Sick Children, £500, £100—£500 annual to maintain 16 beds reopened; new out-patient department required; Hospital for Women, Soho-square, £250, £400—£250 annual to open six closed beds; Hospital of St. John and St. Elizabeth, £200; Italian Hospital, £100; King's College Hospital, £1000, £350—£1000 annual to meet deficiency (advise improving lavatories); London Fever Hospital, £600; London Homœopathic Hospital, £200; London Hospital, £5000—£5000 annual to meet expenditure out of capital made necessary by improvements in the wards; London Lock Hospital (Female), £750—£250 towards new beds and tables; London Temperance Hospital, £500, with a view to early reconstruction of out-patient department; London Throat Hospital (unable to recommend a grant this year); Memorial Cottage Hospital, Mildmay Park, £50; Metropolitan Hospital, £500, £1000—£500 annual to open 10 beds; Middlesex Hospital, £1000—£1000 annual to meet deficiency; Mildmay Mission Hospital, £200; Miller Hospital, £500; National Hospital for the Paralysed, £750—£750 annual to meet deficiency; National Orthopædic Hospital, £200; New Hospital for Women, £300—£300 for painting and cut-off doors, conditional on work being done; North-Eastern Hospital for Children, £500, £500—£500 annual towards maintenance and £500 for a new diphtheria ward; North London Hospital for Consumption, £1000, £50—£1000 annual to support 15 beds reopened by this Fund; North-West London Hospital, £500 (well worthy of support); Paddington Green Hospital for Children, £200; Poplar Hospital, £100 towards furnishing account; Passmore-Edwards Hospital for Willesden, £50; Queen Charlotte's Hospital, £300; Queen's Jubilee Hospital (unable to recommend a grant); Royal Ear Hospital (to be considered next year when plans for rebuilding are definitely settled); Royal Eye Hospital, £100; Royal Free Hospital, £750, £750—£750 annual to meet deficiency, £750 towards improvements (deserving and requires more support from the public); Royal Hospital for Diseases of the Chest, City-road, £550; Royal Hospital for Women and Children, £500; Royal London Ophthalmic Hospital, £900, £1250—£900 annual to open 18 beds (newly rebuilt and highly reported

on; deserving more public support); Royal Orthopædic Hospital, £200 towards debt; Royal Westminster Ophthalmic Hospital, £200; Samaritan Free Hospital, £500—£500 annual towards maintenance (draw attention to need for cutting off sanitary blocks and house committee being increased); St. George's Hospital, £1000; St. John's Hospital (unable to recommend a grant this year); St. Mark's Hospital, £100; St. Mary's Children's Hospital, Plaistow, £250; St. Mary's Hospital, Paddington, £1000, £200—£1000 annual to meet deficiency; St. Monica's Hospital, £50 towards painting; St. Peter's Hospital for Stone, £50; St. Saviour's Hospital, Osnaburgh-street, £50; St. Thomas's Hospital, £1800—annual grant to maintain 30 beds reopened; Tottenham Hospital, £1000—annual grant to maintain 15 beds reopened by this Fund (call attention to insufficient appliances against fire); University College Hospital, £1000, £400—£1000 annual to support 25 beds reopened by this Fund; Victoria Hospital for Sick Children, £200—£100 towards isolation block; West-end Hospital for Diseases of the Nervous System, £200—£100 towards isolation wards and operating-room; Western Ophthalmic Hospital (requires rebuilding); West Ham Hospital, £300, £600—£300 annual towards maintenance (economically and efficiently worked and in a poor neighbourhood); West London Hospital, £1150; Westminster Hospital, £750, £250—£750 annual towards deficiency.

The report of the Convalescent Homes Committee was read by Mr. FRY in the absence of Mr. W. Latham, K.C., as follows:—

The committee have again followed the course adopted in previous years of making out of the limited sum at their disposal fairly substantial grants to a comparatively small number of institutions, and to a great extent they have repeated grants to those before approved of in preference to varying the distribution. The committee recommend the following grants:—Alexandra Hospital, Convalescent Home at Painswick, £50; Charing-cross Hospital, Convalescent Home at Limpsfield, Surrey, £50; Chelsea Hospital for Women, Convalescent Home at St. Leonard's-on-Sea, £50; East London Hospital for Children, Convalescent Home at Bognor, £100; Hospital for Consumption, Convalescent Home, £50; King's College Hospital, Convalescent Home at Hemel Hempstead, £100; Mary Wardell Convalescent Home, Stanmore, Middlesex, £100; Metropolitan Convalescent Institution, 32, Sackville-street, Piccadilly, W., £100; Metropolitan Hospital, Convalescent Home at Cranbrook, £50; Middlesex Hospital, Convalescent Home at Clacton-on-Sea, £100; Mrs. Kitto's Convalescent Home, South Park, Reigate, £50; National Hospital for the Paralysed and Epileptic, Convalescent Home at East Finchley, £50; Paddington Green Children's Hospital, Convalescent Home at Harrow, £50; Queen Charlotte's Lying-in Hospital, Convalescent Home at 20, Victoria-road, Kilburn, £50; Victoria Hospital, Convalescent Home at Broadstairs, £50.

His ROYAL HIGHNESS then moved the adoption of the financial statement and report of the Executive Committee, which, having been seconded by Cardinal VAUGHAN, was carried unanimously.

The DUKE of NORFOLK then moved a vote of thanks and of welcome to His Royal Highness for presiding on the occasion, which the LORD MAYOR seconded.

His ROYAL HIGHNESS, in responding, said: My Lords and Gentlemen,—I thank you very much for your kind vote of thanks. I should like to say that it is both a great honour and a great pleasure to me that the King should have nominated me his successor as President of his Fund for the hospitals of London, which was inaugurated by him and which after Jan. 1st will be known as King Edward's Hospital Fund for London. It is unnecessary for me to say that I shall take, and do take, as keen and great an interest in the undertaking as he himself did and still does. I think we can congratulate ourselves on the general satisfactory state of affairs. I believe that this year, up to Dec. 1st, we had £6000 more than at the same date last year, notwithstanding that no appeals were sent out. An appeal has recently been made for the coronation gift alone, the accounts of which are not included in the financial statement now made as they are for this special purpose. I am glad to be able to say that we can distribute an additional £1000 this year to the hospitals of London, making a total of £50,000 altogether to the hospitals, and a further £1000 to the convalescent homes, thus making a grand total of £51,000, which, I believe, is the highest sum distributed since the first year. I am specially gratified at the continued success of the League of Mercy, which has contributed £7000 this year, being £1000 in excess of last year. I wish to congratulate Sir Henry Burdett on this happy state of affairs which I know is very greatly due to him, as well as to Lord Wolverton, Dr. Collins, and Mr. Harrison. Among those whose services have been most useful and valuable I am sure you will all regret with me the loss of my friend Dr. Creighton, the late Bishop of London, and also of Sir William Mac Cormac, that eminent surgeon. They took a very great interest in this Fund and maintained that interest until the time of their deaths. I can only say that their wise counsel and help will be greatly missed by us all. I wish to convey my warmest thanks to the General Council, and also to the Executive Committee, the Organising Committee, the Visiting Committee, the Hospitals Distribution Committee, and the Convalescent Homes Committee, the honorary secretaries, and all others connected with this Fund.

Looking Back.

FROM

THE LANCET, *SUNDAY, JAN.* 4, 1824.

Medical Baths.—Whether substances can be made to penetrate through the outer skin, this being whole and entire, is still a *sub judice* question in physiology, and until this question be satisfactorily determined, it is not perhaps possible to decide with certainty respecting the alleged virtues of materials, whether applied in a liquid or vaporous form to the surface of the body, for the counteraction of diseased states. To suppose for a moment, that the notion of medicated baths is founded in error, and is a mere expedient of empiricism, will be to excite suspicion in many readers; but every one must be aware, that faith, in different medical processes and articles, often gains for a time a very firm footing upon very slippery ground, and that maladies are not seldom cured by the unassisted influence of the imaginative power. That the bulk of the body or of a limb, is encreased by immersion in hot water or vapour, is a fact to which we have already adverted; but it has also been said, that this encrease of size is possibly attributable to other principles, than that of the actual entrance of the fluid from without, so that this circumstance in itself would prove nothing; if, by the same process, the *weight* of the body were increased, we should seem to approach somewhat nearer to certainty on the point in dispute. We shall again, therefore, almost immediately refer to this particular; but first, it may be right to state one or two of the leading arguments that have been adduced in favour of an imbibing power possessed by the surface of the body. That the system may be impregnated in an unequivocal manner, by the application externally of materials, as in the case of mercurial unguent, is a fact sufficiently established; and the mere *laying* some substances on the skin, even without friction, has been supposed in certain cases to give decided proofs of internal effect. It is likewise well known that thirst is often times alleviated by bathing the body in water; a practice to which sailors in long voyages often have recourse, when their supply of fresh water fails them. Dr. Macard, in his *Treatise on Bathing*, assumes this is so satisfactory in proof of absorption by the skin, that he says, "no naturalist will rate the sufferings of Tantalus very highly." The effect by others, however, who disbelieve in cutaneous absorption, has been attributed partly to the grateful sensations produced by immersion, and partly to the sympathetic relations, which the organs concerned in thirst have with the actions of the skin.

*** This Essay on Bathing will be concluded in our next number.

TO CORRESPONDENTS.

Several Correspondents have expressed a wish, that the space now occupied by 'Chess Problems' should be devoted to Medical Subjects. We are anxious, as far as possible, to consult the taste of our Subscribers. It must have been observed that we have already discontinued Theatrical Criticism, and other subjects of a Miscellaneous nature, perhaps to the dissatisfaction of some Readers, but we are ready to acquiesce in the above-mentioned suggestion, unless we receive such a number of Communications from other Correspondents, as may induce us to believe that a considerable portion of our Readers wish the articles on Chess to be continued.

THE IRISH MEDICAL ASSOCIATION AND POOR-LAW REFORM IN IRELAND.

THE following circular letter has been sent to all Irish Members of Parliament:—

Royal College of Surgeons, Dublin,
23rd day of December, 1901.

To ———, M.P. for ———

DEAR SIR,—The sensational death of Dr. Smyth of Burton Port, a member of the Irish Poor-law Medical Service, also of this Association, whose heroic death in the discharge of his duty to the poor of his district has aroused public sympathy, induces the Association once more to direct the attention of Parliamentary representatives of Ireland

to the many disadvantages under which the officers of the service have for so many years laboured. They hope that the subject of Poor-law reform may engage at the earliest possible moment the earnest attention of our legislature.

It is beyond all doubt or contention that the Irish Poor-law medical service is insufficiently paid; that the pittance, varying between £33 and £80 per annum, still given to medical officers in many unions bears no relationship to the areas of the dispensary districts, nor to the population contained therein, nor to the number of persons entitled to gratuitous attendance.

The Association now approaches you, not alone with the view of enlisting your sympathy and interest in the welfare of its members, many of whom in the past have rendered up their lives in the same heroic manner as Dr. Smyth has done, but with the object of directing your attention to the following facts of great and vital importance to the health and, it may be added, the prosperity of the people of Ireland:—

(a) The prevention and control of epidemics in Ireland are duties for the due performance of which the public are almost wholly dependent upon the Poor-law medical officer. The rate at which this official is paid (in most cases about £5 per annum) for this all-important office connected with the public health is wholly inadequate to ensure its efficient discharge, and is almost ludicrous when compared with similar salaries paid to English medical officers for less difficult duties of a similar character.

(b) The great cost of advanced medical education and its consequent increase in value, with little or no prospect of an adequate return, is one of the causes of the yearly emigration of the best, ablest, and more healthily ambitious of our young Irish doctors, who carry with them to our colonies, or to foreign lands, those abilities which might be of such service to their fellow-countrymen at home.

This is a serious matter affecting the health and welfare of the public and may become more acute if redress of these grievances is longer withheld.

It cannot be expected that able medical men will continue in the future to enter a service where there is no hope of advancement and where no facilities are given for the study of those new subjects in connexion with medical science which are yearly becoming of more and more interest and utility in the alleviation of the sufferings of mankind, especially when they are offered as an inducement a less wage than is given to a tradesman or a skilled mechanic.

The Irish Medical Association could mention, if necessary, many disabilities and hardships under which its members have at all times struggled to discharge their duty to the poor. Suffice it to say that no thinking person can approach the subject of Poor-law reform in Ireland without being driven to the conclusion that our grievances are real and that their redress must mean an enormous advantage to the sick poor.

With these facts before you we venture to solicit your coöperation by either yourself introducing a measure of necessary reform or in furthering legislation to that end.

We call upon you to provide for your own poor, sick, and dying fellow-countrymen a physician of the very best skill and ability, not one rendered incompetent by age or bodily infirmity—not one whose declining years are soured and embittered by the thought that he must leave those dependent on him unprovided for when death overtakes him in this service of danger, hardship, and distress to which the Poor-law medical officer has devoted his life. He must at all times be prepared to face disease and death, and it is not unreasonable to ask that those who are responsible should insure that he be physically able to meet it as nobly as Dr. Smyth has done.

The yearly stream of emigration from our shores, the yearly increase of our insane population, are subjects that must alarm our social reformers and all interested in the welfare of Ireland. The housing of the very poor, the sanitary education of the bulk of our people, are also matters which should be dealt with by the Legislature in its responsibilities for the betterment of our country.

These weighty matters should, in the opinion of the Irish Medical Association, find a place in any measure dealing with the reform of the Poor-law system of Ireland.

RICHARD R. LEEPER, F.R.C.S. Irel., Honorary Secretary.

ASYLUM REPORTS.

Saint Andrew's Hospital for Mental Diseases, Northampton (Annual Report for 1900).—The average number of patients resident during the year was 378 and comprised 184 males and 194 females. During the year 98 patients were admitted, of whom 41 were males and 57 females. Of these three males and 13 females were re-admissions. The hospital is intended for the reception of insane patients of the middle and upper classes. Mr. Joseph Bayley, the medical superintendent, states in his report that the female wing of the hospital has been constantly full throughout the year, but that on the male side there has been room in the wards recently altered. During the year 50 patients were discharged as recovered, or 13·2 per cent. of the average number resident. Of the deaths during the year, which amounted to 24, or 6·5 per cent. of the average number resident, two were due to cancer, two to mania, two to phthisis, three to melancholia, three to general paralysis, six to senile decay, and the rest to other causes. There has been no case of infectious fever and the sanitary condition of the hospital has been satisfactory during the year. The seaside house at Deudraeth Castle has been occupied for the greater part of the year. "115 patients have gone there. "I hope," writes Mr. Bayley, "still further to increase the number of patients who will have the benefit of a change to the seaside now that the governors have purchased Bryn-y-Neuadd Hall, Llanfairfechan, which is much nearer and more easily reached than Castle Deudraeth was." Every endeavour has been made to get the patients to occupy themselves on the farm and gardens and in the shops, and with satisfactory results. The average numbers employed daily comprise 73 males and 57 females. The Commissioners in Lunacy state in their report that the highest praise can be given with respect to the state in which they found the institution everywhere, and that the entries in the medical case-books are made fully and up to date. At a later visit the Commissioners record that the hospital is in excellent order, that the wards on the male side are all that can be desired, and that when the projected improvements of the wards in the female division are effected this division will fully equal the male. The Committee of Management state in their report that the payments for patients are 42*s.* and 25*s.* a week per head respectively, according to the class in which the patients are to be placed. They have recently purchased Bryn-y-Neuadd Hall, a mansion situated in a park of 180 acres, close to the sea, and affording accommodation for at least 40 patients. Various improvements have been made with regard to electric lighting and the arrangements for boilers, heating, and stores. There has been no change in the staff of officers.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6549 births and 4233 deaths were registered during the week ending Dec. 21st, 1901. The annual rate of mortality in these towns, which had declined from 21·3 to 18·5 per 1000 in the four preceding weeks, rose again to 19·3. In London the death-rate was 18·7 per 1000, while it averaged 19·6 in the 32 large provincial towns. The lowest death-rates in these towns were 14·3 in Portsmouth, 15·1 in Croydon, 15·9 in Halifax, 16·3 in Norwich, and 16·4 in Hull; the highest rates were 22·1 in Liverpool, in Manchester, and in Salford, 22·2 in Gateshead, and 32·6 in Oldham. The 4233 deaths in these towns included 441 which were referred to the principal zymotic diseases, against 433, 418, and 414 in the three preceding weeks; of these 441 deaths 138 resulted from measles, 78 from whooping-cough, 76 from diphtheria, 49 from diarrhœa, 39 from scarlet fever, 37 from "fever" (principally enteric), and 24 from small-pox. The lowest death-rates from these diseases were recorded in Portsmouth, Bristol, Nottingham, Bradford, Hull, Gateshead, and Newcastle; and the highest rates in Bolton, Salford, Oldham, Blackburn, and Preston. The greatest mortality from measles occurred in Plymouth, Norwich, Manchester, Oldham, Blackburn, Preston, and Halifax; from whooping-cough in Bolton, Salford, Burnley, and Sunderland; from "fever" in Salford; and from diarrhœa in Burnley. The mortality from scarlet fever showed no marked excess in any of the large towns. The 76 deaths from diphtheria included 34 in London, eight in Liverpool, three in Croydon, three in Cardiff, three in Leicester, three in Manchester, and three in Salford. 24 fatal cases of small-pox were registered in London, but not one in any other of the 33 large towns. There were 538 cases of small-pox under treatment in the Metropolitan Asylums hospitals on Saturday, Dec. 21st, against 427, 474, and 506 on the three preceding Saturdays; 161 new cases were admitted during the week, against 123, 170, and 134 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 3353 to 3241 at the end of the four preceding weeks, had further declined to 3033 on Saturday, Dec. 21st; 247 new cases were admitted during the week, against 320, 376, and 327 in the three preceding weeks. The causes of 53, or 1·3 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Leicester, Salford, Leeds, and other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Blackburn, Sheffield, and Gateshead.

In 33 of the largest English towns 4565 births and 4628 deaths were registered during the week ending Dec. 28th, 1900. The annual rate of mortality in these towns, which had been 18·5 and 19·3 per 1000 in the two preceding weeks,

further rose last week to 21·1. In London the death-rate was equal to 20·6 per 1000, while it averaged 21·4 in the 32 large provincial towns. The lowest death-rates in these towns were 14·3 in Derby, 17·2 in Norwich, 17·4 in Halifax, 18·1 in Bradford, and 18·3 in Birkenhead; the highest rates were 23·5 in Birmingham, 24·2 in Salford, 25·2 in Huddersfield, 26·3 in Burnley, and 29·3 in Manchester. The 4628 deaths in these towns last week included 485 which were referred to the principal zymotic diseases, against 418, 414, and 441 in the three preceding weeks; of these 485 deaths 198 resulted from measles, 84 from whooping-cough, 71 from diphtheria, 45 from scarlet fever, 37 from diarrhœa, 27 from small-pox, and 23 from "fever" (principally enteric). The lowest death-rates from these diseases last week were recorded in Plymouth, Portsmouth, Derby, and Bradford; and the highest rates in Norwich, Burnley, Preston, and Leeds. The greatest mortality from measles occurred in Norwich, Manchester, Salford, Oldham, Preston, and Huddersfield; and from whooping-cough in Liverpool, Burnley, and Leeds. The mortality from scarlet fever, from "fever," and from diarrhœa showed no marked excess in any of the 33 towns. The 71 deaths from diphtheria in these towns included 26 in London, seven in Burnley, five in Birmingham, four in Birkenhead, four in Liverpool, and four in Sheffield. 25 fatal cases of small-pox occurred in London and two in West Ham, but not one in any other of the 33 large towns. There were 665 small-pox cases under treatment on Saturday last in the Metropolitan Asylums hospitals, against 474, 506, and 538 on the three preceding Saturdays; 225 new cases were admitted during the week, against 170, 134, and 161 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 3241, 3188, and 3033, at the end of the three preceding weeks, had risen again to 3137 on Saturday, Dec. 28th; 263 new cases were admitted during the weeks, against 377, 331, and 320 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 470, 427, and 393 in the three preceding weeks, rose again to 425 last week, but were 176 below the corrected average weekly number. The causes of 86, or 1·9 per cent., of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Salford, Leeds, and in 11 other smaller towns; the largest proportions of uncertified deaths were registered in Swansea, Birmingham, Liverpool, Blackburn, Preston, Sheffield, and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20·5 and 20·7 per 1000 in the two preceding weeks, further rose to 21·5 during the week ending Dec. 21st, 1901, and was 2·2 per 1000 in excess of the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 13·4 in Leith and 17·0 in Paisley to 27·7 in Dundee and 31·5 in Perth. The 684 deaths in these towns included 30 which were referred to measles, 17 to diarrhœa, 10 to whooping-cough, seven to "fever," three to diphtheria, and two to scarlet fever. In all, 69 deaths resulted from these principal zymotic diseases in the week, against 72 and 70 in the two preceding weeks. These 69 deaths were equal to an annual rate of 2·2 per 1000, which was 0·2 above the mean rate from the same diseases in the 33 large English towns. The fatal cases of measles, which had been 23 and 28 in the two preceding weeks, further rose to 30, of which 22 occurred in Glasgow and seven in Dundee. The deaths from diarrhœa, which had declined from 30 to 15 in the four preceding weeks, rose again to 17, and included seven in Glasgow, five in Dundee, two in Aberdeen, and two in Greenock. The fatal cases of whooping-cough, which had been four and nine in the two preceding weeks, further rose to 10, of which seven were registered in Glasgow. The deaths referred to different forms of "fever," which had been nine, 10, and 11 in the three preceding weeks, declined again to seven and included six in Glasgow. The three fatal cases of diphtheria corresponded with the number in the preceding week, and included two in Dundee. The deaths referred to diseases of the respiratory organs in these towns, which had been 186, 180, and 165 in the three preceding weeks, rose again to 188, and were 77 in excess of the number in the corresponding period of last year. The causes of 28, or more than 4 per cent., of the deaths in these eight towns were not certified.

The annual rate of mortality in the eight Scotch towns, which had been 20·5, 20·7, and 21·5 per 1000 in the three preceding weeks, further rose to 22·6 per 1000 during the week ending Dec. 28th, 1901, and showed an excess of 1·5 over the mean-rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 14·1 in Leith and 17·4 in Perth to 24·2 in Dundee and 24·8 in Glasgow. The 720 deaths in these towns included 36 which were referred to measles, 23 to diarrhœa, eight to diphtheria, seven to scarlet fever, seven to whooping-cough, and five to "fever." In all 86 deaths resulted from these principal zymotic diseases last week, against 72, 70, and 69 in the three preceding weeks. These 86 deaths were equal to an annual rate of 2·7 per 1000, which was 0·5 above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of measles, which had been 23, 28, and 30 in the three preceding weeks, further rose last week to 36, of which 22 occurred in Glasgow, 10 in Dundee, and four in Greenock. The deaths from diarrhœa, which had been 15 and 17 in the two preceding weeks, further increased to 23 last week, and included 15 in Glasgow, four in Dundee, two in Edinburgh, and two in Aberdeen. The fatal cases of diphtheria which had been three in each of the two preceding weeks, increased last week to eight, of which three were registered in Dundee and three in Aberdeen. The deaths from scarlet fever, which had been nine, four, and two in the three preceding weeks, rose again to seven last week, and included four in Glasgow and two in Greenock. The fatal cases of whooping cough, which had been four, nine, and 10 in the three preceding weeks, declined again last week to seven, of which six occurred in Glasgow. The deaths referred to different forms of "fever," which had been 10, 11, and seven in the three preceding weeks, further declined to five last week, and included three in Glasgow. The deaths from diseases of the respiratory organs in these towns, which had been 165 and 188 in the two preceding weeks, declined again last week to 166, but showed an excess of 45 over the number in the corresponding period of last year. The causes of 27, or nearly 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 18·8, 20·2, and 17·9 per 1000 in the three preceding weeks, rose again to 25·9 during the week ending Dec. 21st, 1901. During the previous four weeks the death-rate had averaged 20·7 per 1000, the rates during the same period being 19·3 in London and 19·9 in Edinburgh. The 186 deaths belonging to Dublin registered during the week under notice were 57 in excess of the number in the preceding week, and included 15 which were referred to the principal zymotic diseases, against seven, six, and one in the three preceding weeks; of these, four resulted from whooping-cough, four from "fever," three from diphtheria, two from scarlet fever, and two from diarrhœa. These 15 deaths were equal to an annual rate of 2·1 per 1000, the zymotic death-rates during the same period being 2·1 in London and 0·2 in Edinburgh. The mortality during the week from fever, from whooping-cough, from diphtheria, and from scarlet fever was considerably in excess of that recorded from each of these diseases in any of the three preceding weeks. The deaths from diarrhœa, which had been four, two, and none in the three preceding weeks, rose again to two. The 186 deaths in Dublin included 28 of children under one year of age and 42 of persons aged upwards of 60 years; the deaths both of infants and of elderly persons showed a marked excess over the numbers recorded in the preceding week. Eleven inquest cases and 10 deaths from violence were registered, and 63, or more than a third, of the deaths occurred in public institutions. The causes of 10, or more than 5 per cent., of the deaths in Dublin were not certified.

The death-rate in Dublin, which had been 17·9 and 25·9 per 1000 in the two preceding weeks, further rose to 26·8 per 1000 during the week ending Dec. 28th, 1901. During the 13 weeks ending on that date the death-rate averaged 21·7 per 1000, the rates during the same period being 18·4 in London and 18·0 in Edinburgh. The 193 deaths of persons belonging to Dublin registered during the week under notice showed an excess of seven over the number in the preceding week,

and included 10 which were referred to the principal zymotic diseases, against six, one, and 15 in the three preceding weeks; of these five resulted from "fever," three from diarrhœa, and two from diphtheria. These 10 deaths were equal to an annual rate of 1·4 per 1000, the zymotic death-rate during the same period being 2·1 in London and 0·8 in Edinburgh. The mortality both from "fever" and from diarrhœa slightly exceeded that recorded in the preceding week, while the deaths from diphtheria showed a slight decline. The 193 deaths in Dublin last week included 26 of children under one year of age and 63 of persons aged upwards of 60 years; compared with the numbers in the preceding week, the deaths of infants showed a decline of two, while those of elderly persons were 21 in excess. Three inquest cases and seven deaths from violence were registered; and 71, or nearly three-eighths, of the deaths occurred in public institutions. The causes of 13, or nearly 7 per cent., of the deaths in Dublin last week were not certified.

THE SERVICES.

ROYAL ARMY MEDICAL CORPS.

SURGEON-GENERAL A. F. PRESTON, who has been acting as Director-General of the Army Medical Service, has resumed the post of Principal Medical Officer in Ireland on being relieved at the War Office by Surgeon-General W. Taylor.

Major J. R. Stuart is transferred from the Deesa district to the Bombay district, and Major A. P. H. Griffiths from the Mhow district to the Deesa district and appointed to the medical charge of the Station Hospital, Ahmedabad. Major F. S. Le Quesne, V.C., is appointed for duty with the 3rd Battalion York and Lancaster Regiment.

VOLUNTEER CORPS.

Artillery: 1st Dorsetshire (Southern Division, Royal Garrison Artillery): Surgeon-Captain A. Kinsey-Morgan to be Surgeon-Major. *Rifle:* 1st Volunteer Battalion the Lincolnshire Regiment: Arthur Stanley Green to be Surgeon-Lieutenant.

DEATHS IN THE SERVICES.

Henry James Penny, F.R.C.S. Eng., I.M.S. (retired), at his residence at Taunton on Dec. 22nd, 1901, in his eighty-sixth year. The deceased belonged to an old Taunton family and qualified M.R.C.S. Eng. in 1841, being admitted F.R.C.S. Eng. in 1856. Shortly after qualifying he entered the Indian Medical Service, retiring about 30 years ago with the rank of deputy inspector-general of hospitals. Mr. Penny then returned to Taunton.

ROYAL NAVAL HOSPITAL, HASLAR.

The session of special instruction at the Royal Naval Hospital, Haslar, terminated on Dec. 21st, 1901, when the following surgeons received appointments to H.M. ships. Prizes were awarded to Surgeon A. T. Gailleton (silver medal and books) and Surgeon T. B. Shaw (microscope). Surgeons in order of seniority:—

Name.	Marks.	Name.	Marks.
T. B. Shaw	6014	G. S. Davidge	5121
A. T. Gailleton	5731	P. T. Nicholls	4997

P. L. Crosbie (entered under special Admiralty regulations).

SOUTH AFRICAN WAR NOTES.

Civil Surgeon Reid is reported severely wounded and Civil Surgeon Wright slightly wounded at Tweefontein (Dec. 25th).

Lieutenant J. S. Twigg, R.A.M.C., is reported killed on Dec. 22nd between Clanwilliam and Calvinia. He joined the service in 1900.

Civil Surgeon (attached R.A.M.C.) W. E. Jones is reported seriously ill.

VITAL STATISTICS OF THE INDO-DUTCH ARMY.

The information set forth in the following table is interesting, but its value is considerably lessened for the purposes of comparison because the system upon which the statistics are arranged is somewhat at variance with that adopted in India and in our tropical colonies.

Indo-Dutch Army.

—	1898.		1899.	
	Europeans.	Natives.	Europeans.	Natives.
Average strength	16,318	24,963	16,389	24,137
Remained per 1000 on Jan. 1st...	115	66	123	74
Admitted per 1000 ...	1,960	1,276	1,727	1,213
Discharged ,, ,, ...	1,904	1,227	1,682	1,152
Invalided ,, ,, ...	39	25	49	52
Died ,, ,, ...	13	10	10	11
Remaining per 1000 on Dec. 31st	119	80	109	72

Among the European deaths 36 took place out of hospita in 1898 and 30 in 1899, the causes alleged being as follows: fever, three; beri-beri, one; apoplexy, two; delirium tremens, two; paralysis of the heart, two; enteritis, one; peritonitis, one; hæmorrhage, one; gunshot wound (murder or accident), four; killed in action, four; died from wounds, six; exhaustion, two; drowning, 16; hanging, one; crushing, four; "fear," one; burning, six; suicide, 10; cause unknown, two. Of the deaths in hospital among Europeans, 147 are ascribed to paludism, 13 to typhoid fever, three to cholera, eight to beri-beri, one to tetanus, three to pyæmia, three to syphilis, five to debility, seven to affections of the nervous system, seven to affections of the lungs, four to pulmonary phthisis, four to heart disease, five to palpitation, four to liver affections, 54 to other digestive diseases, five to venereal complaints, two to skin diseases, and 36 to other affections, the total for the biennium being 311.

SOUTH AFRICAN AFFAIRS.

Although we are not, of course, directly concerned with the progress of any purely military occurrences at the seat of war in South Africa otherwise than as these must affect the medical services by tending to prolong the war, it is impossible to pass over unnoticed the losses sustained by the British force at Tweefontein, owing to De Wet's fierce and determined attack. The recent disaster at Tweefontein closely resembled that which happened at Majuba Hill in 1881; essentially the same plan and tactics were successfully adopted by the Boers with very similar results on both occasions. In addition to the long list of casualties at Tweefontein, which may happily be regarded as an exceptional occurrence, there have been several minor engagements in which the British troops have successfully surprised and attacked laagers and made more or less important captures with relatively small loss to themselves. The latest sick returns are satisfactory on the whole. They show much the same amount and nature and causes of disease as heretofore. The management of the concentration camps has been taken over by Lord Milner and his civil staff. The camps are gradually being broken up with good results as far as the prevalence and amount of sickness are concerned.

THE INDIAN MEDICAL SERVICE AND THE REPORT OF MR. BRODRICK'S COMMITTEE.

As might be expected much interest and curiosity have arisen as to how the changes foreshadowed in the report of Mr. Brodrick's Committee on the Royal Army Medical Corps will be received and carried out by the Indian Government and what effect the new scheme will have upon the Indian Medical Service. Any changes and improvements in the British Medical Service will have to be adapted and made applicable to the Indian Medical Service which, it must be borne in mind, has to meet numerous civil as well as military requirements in that country. It is pretty well known that the subject has been occupying the attention of the officials at Simla and it is believed that the Indian Government has been drawing up some scheme of proposals for submission to the Secretary of State.

THE POST OF DIRECTOR-GENERAL OF THE INDIAN MEDICAL SERVICE

The recent death of Surgeon-General R. Harvey at Simla causes a vacancy in the appointment of Director-General of the Indian Medical Service, and the Government of India, in addition to other more or less urgent matters of a military

medical nature now engaging its attention, will have to select a successor to the late Surgeon-General in that post. The appointment is a very important and responsible one and it is needless to add that the selection of an able and experienced medical officer is required to fill it well. Up to the present time no official announcement has been made as to the name of the officer to be appointed by the Government.

Correspondence.

"Audi alteram partem."

FIRST AID FOR PRIMARY HÆMORRHAGE: THE WRONG TEACHING GIVEN TO AMBULANCE CLASSES.

To the Editors of THE LANCET.

SIRS,—The practical outcome of notions stated to have been acquired at ambulance classes as regards the first aid for primary hæmorrhage has come under my notice in many cases admitted under my care at the Westminster Hospital. The result has been to increase, in some cases very largely, the amount of bleeding over and above that which would have occurred had no such first aid been applied.

It would appear that instruction is given in such classes which is not informed by the actual requirements of practical surgery. Those who have attended such classes seem to have got the idea fixed in their minds that they must always apply some sort of an improvised tourniquet to the limb above the bleeding point, whilst they have not learned in these classes the necessity of applying pressure directly to the wound. The uninstructed individual, retaining his presence of mind, might apply pressure directly and so in the great majority of cases successfully control the hæmorrhage until the arrival of medical help. Those who have been wrongly instructed as regards this first aid do not understand that by applying an improvised tourniquet above the bleeding point with a degree of tightness short of absolutely controlling all the circulation they directly cause venous obstruction and raise the venous tension so as to approach that in the corresponding arteries. It is thus easy for a large part of the patient's blood to be forced out of a very small wound simply as the result of the application of such a tourniquet.

Instances of entirely unnecessary hæmorrhage caused in this way have been seen by me most frequently in cases of ruptured varicose veins, superficial lacerated wounds, and compound fractures. The most absurd instances are the cases of ruptured varicose veins and varicose ulcers, for the elevation of the limb or the slightest pressure with the finger would have sufficed to stop the bleeding. To quote one. A man struck his leg against the corner of a box, causing a minute puncture, such as might be made by a tenotome, in a varicosity behind the knee. His fellow workmen tied a handkerchief round the thigh sufficiently tight to cause venous obstruction, but did not apply any pressure over the bleeding spot. This was what they said they had been taught to do. By the time the patient reached the hospital he was acutely anæmic. I saw him immediately on admission; he was infused with saline fluid and recovered, but a month later he was still anæmic. There was no further bleeding from the puncture directly the constricting handkerchief was removed.

Quite recently two men were admitted to the hospital with superficial lacerated wounds about the elbow. With other men they had been lifting a large plate of glass which suddenly broke in pieces and cut them. A bandage was at once applied in each case above the wound, from which they continued to bleed severely and were both very anæmic on reaching the hospital. A careful examination under an anæsthetic showed that only the superficial veins about the elbow had been divided. Neither the brachial artery nor its branches had been injured. The effect of the bandages applied above the wounds had been to cause a forced venesection in each case, rendering infusion necessary. The anæmia markedly delayed healing. Similar altogether unnecessary loss of blood has occurred in cases of compound fractures. In the following one I believe the improvised tourniquet to have been the direct cause of the patient's death. A strong young man, aged 20 years, sustained a compound fracture of the lower third of the femur with protrusion of the upper fragment. There was no further injury, as the subsequent post-mortem examination showed; the popliteal artery and vein, also the anastomotic artery, were uninjured. Only the muscles of the lower third of the thigh, including terminal branches of the profunda artery and vein, were lacerated. Immediately after the accident a handkerchief was tied round the thigh above the wound and the man was carried straight to the hospital. I happened to see him as he was brought in. He was then absolutely anæmic; his blood had saturated all the clothes of the lower limb. The half-tight constricting handkerchief was removed, and no blood escaping a pad and firm bandage were applied over the wound. He was then quickly infused with six pints of saline fluid, stimulating rectal enemata, injections, and drinks being also tried, but he died in about an hour. The post-mortem report says that the cadaver was exsanguine. Such a compound fracture without complications in a healthy young man is, of course, quite consistent with recovery.

The application of direct pressure is the proper first aid in all cases. The vast majority of such cases are superficial lesions of veins and small arteries. Supposing the much rarer instance of hæmorrhage from a large artery, the wound must be directly pressed upon or too much blood will be lost whilst a tourniquet is being improvised. First aid has been successfully rendered—e.g., by army medical officers—either by pressure with the bare finger or along with the interposition of a plug, directly upon the cut artery. It must surely tend to confusion if in an elementary ambulance class the teacher enters upon the subject of the circulation and the compression of the main arteries. One hears about ladies being taught to compress the femoral artery of a little boy, but are they told at the same time how difficult this would be to accomplish in an excited and restless adult—a muscular man, or fat woman?

When told to use improvised tourniquets is it explained to the class how tightly a surgeon has to apply an elastic band even on an unconscious patient to control fully the circulation? Supposing a tourniquet to be applied really tightly to a conscious patient, such pain is caused that the patient will wriggle and try to push the band a little lower down the limb, so slackening it. It may be argued that pressure should first be applied to the bleeding point and then an improvised tourniquet made to encircle the limb above. The most probable result, say in the case of deep hæmorrhage from a puncture or bullet-wound, will be to raise venous tension in the limb, and the blood being prevented from escaping by the wound it becomes widely extravasated into the limb and this may lead to gangrene and amputation. In conclusion, therefore, I desire to point out that instruction in first aid for primary hæmorrhage which does not put direct pressure upon the wound forward as the one and only method, to be kept up until medical help comes, fails in its object. Secondly, the instruction as to improvised tourniquets shows a lack of acquaintance with the actual circumstances intended to be met. The result is the production of an unnecessary, often dangerous, amount of hæmorrhage owing to venous obstruction whilst the main artery still continues to carry blood to the limb. In the cases which have fallen under my notice where an improvised tourniquet has been used much more blood has been lost than would have taken place had no such "first aid" been given.

I am, Sirs, yours faithfully,

WALTER G. SPENCER,
Dec. 30th, 1901. Surgeon to the Westminster Hospital.

THE CONSULTANT AND THE GENERAL PRACTITIONER.

To the Editors of THE LANCET.

SIRS,—As a subscriber to THE LANCET for over 30 years will you allow me a small space in your valuable journal for the inclosed, with your opinion upon the same?

A patient of mine under treatment for an attack of laryngeal catarrh came to me on Friday, Nov. 22nd, at which time he was steadily improving; he also seemed perfectly happy about the way he was going on. On the Monday following he called again, bringing for me a letter. He told me that he had consulted a Dr. ——, a specialist. He informed me that he had told Dr. —— that he was under my care; also that he had come to him without my knowledge, or desire, or sanction. With this information Dr. —— saw him. He asked what my treatment had been

and then suggested a line of treatment for *me* to carry out, when I had neither desired, nor asked, nor sought his help. I declined to receive his communication, contending that no consultant ought to see a patient under treatment without first receiving a card of introduction or some kind of communication from the general practitioner who has the case in hand. My contention, further, is that such behaviour is not in harmony with the dignity of an honourable profession and would not be tolerated for one moment in her sister profession, the law. A "consultant" is no longer a "consultant," but thereby enters the open competitive market with the general practitioner and all trust between two branches of an honourable profession is lost.

I am, Sirs, yours faithfully,

F. MONTAGUE MILLER.

Upper Clapton, N.E., Nov. 30th, 1901.

ENLIGHTENED ST. LUCIA.

To the Editors of THE LANCET.

SIRS,—The efforts made by our smart, go-ahead, but underpaid colonial governments, and their smart, go-ahead, but underpaid sanitary services, to comprehend a new idea—namely, the fact that several diseases are carried by mosquitoes—have afforded during the last three years an intensely amusing spectacle, quite worthy of the Turkish Empire. That progressive island, St. Lucia, is a case in point. Malaria accounts for more than a fifth of the admissions, even into the civil hospitals, filariasis is common, and yellow fever is an occasional visitant. Had the island belonged to the Americans it would have, no doubt, long ago been treated to the anti-mosquito operations which have produced such brilliant results in Havana; but unfortunately it is only a British colony. It possesses, however, two young medical men, Mr. O. Galgey and Dr. St. George Gray, who are trying to rouse the sleeping ox. In the Hospitals Report for 1900[1] they have actually described the existence of anopheles pools in the island and have even suggested that anti-mosquito measures "might be applied with beneficial effect to Castries and its environs," while Dr. Gray has gone to such lengths as to recommend the use of mosquito nets.

We can well understand the horror and amazement of the St. Lucians at such revolutionary proposals. That great paper, the *Voice of St. Lucia*, has at once bravely confronted the medical incendiaries. In its issue of Nov. 14th it devotes several columns of wit and wisdom to their discomfiture. Dr. Gray is recommended (as Keats was) "to stick to the scalpel and put away the pen." We are told that there is nothing "more likely to discredit the mosquito theory than the special pleading of such advocates as these." Lastly, in the midst of some of the worst trash I have ever seen printed even in a colonial newspaper, it insinuates that Dr. Gray, who has evidently been working hard at his subject from a proper sense of his duties, is prompted by pecuniary motives and *wishes to be paid* for disclosing the locality of the anopheles pools found by him. "We are sure a small grant from public funds," says the *Voice of St. Lucia*, "would transfer this valuable information from the doctor's mind to the public domain."

The reports of Dr. Gray and Mr. Galgey are covered in the same official publication by a letter from Mr. C. Dennehy, the colonial surgeon. Mr. Dennehy's remarks are not very intelligible, but they scarcely give to his subordinates the support which we should expect from the head of their profession in the colony. All he does is to venture upon a few observations of a discursive scientific nature. "The mosquito and its parasites are now beyond question proved to be the bane of tropical life," he says, "but the origin of the parasite has yet to be shown." I do not think anyone will in the least understand what this means. Again, referring to the prevalence of culex fasciatus in the island, he says: "Let us hope there is some mistake or false report here as we have not had a case of yellow fever for several years past"—as if yellow fever should exist wherever culex fasciatus exists, that is, all over the tropics. And this is all; not a hint of any practicable recommendations for removing mosquito-borne disease in the island.

The questions everyone will ask are—Why were not the anopheles pools located two years ago? Why were not drainage or house-protection or other measures adopted long since? I suppose that there is some paid sanitary authority in the place? Why, then, does it not do its duty? If measures against malaria can be carried on in Lagos, Sierra Leone, New York, and Havana, why not in St. Lucia?

The truth is that the Home Government should change its policy in this matter. It is useless to expect the local authorities in the majority of our tropical possessions to take any initiative as regards mosquito-borne disease. Frankly, they evidently do not wish to be put to the trouble. The Home Government should send out explicit instructions or should take the example of the Liverpool Tropical School and despatch an expert to each colony for the express purpose of superintending anti-malaria measures. It is absurd to talk about want of funds. If a few Liverpool merchants can afford to despatch a dozen men on such errands, as they have done, surely the British empire can afford to do the same thing. It is time that more businesslike measures be adopted in this matter. In the meantime I fancy that the efforts of Dr. Gray and Mr. Galgey will receive more appreciation in this country than they appear to be receiving in Lotos Island. I should like to add, however, that we must all fully recognise the great assistance which is being given to this cause by Mr. Chamberlain, Dr. P. Manson, and the governors of the West African colonies.

I am, Sirs, yours faithfully,

RONALD ROSS, F.R.C.S. Eng., D.P.H. Lond., F.R.S.
Liverpool School of Tropical Medicine, Dec. 16th, 1901.

P.S.—Yellow fever has just broken out in St. Lucia. It will be interesting to see what measures the local authorities will take against it.

[1] St. Lucia Gazette, Castries, Nov. 8th, 1901.

THE GODDESS OF SMALL-POX.

To the Editors of THE LANCET.

SIRS,—In the discussion upon small-pox at the Hunterian Society reported in THE LANCET of Dec. 28th, 1901, it was mentioned that in India there was a goddess called "Amma," or mother. I have at this moment in front of me a silver-plated copper figure of this very "Amma," goddess of small-pox. She is about two inches high, a stout, middle-aged lady, kneeling in elaborately chased robes, which form a base about three inches in diameter. Her face is quite clear and clean cut, but the curious point about the idol is that there fits over the face and head a detachable mask and guilded cap representing another face and head prodigiously swollen and deeply pitted with pocks. I shall be pleased to show it to anyone interested or to lend it for exhibition to any medical society that will guarantee its safety.

I am, Sirs, yours faithfully,

40, Camden-square, N.W., Dec. 31st, 1901. JOHN F. J. SYKES.

THE SUPRAPUBIC OPERATION IN ENCYSTED CALCULUS.

To the Editors of THE LANCET.

SIRS,—In the Bradshaw Lecture delivered at the Royal College of Surgeons of England on Dec. 11th, 1901, and published in THE LANCET of Dec. 14th (p. 1647), Mr. T. R. Jessop describes three interesting cases of encysted stone in the bladder in each of which the stone was successfully removed by the suprapubic operation. The lecturer informs us that cases of this kind are very uncommon. That they are so is amply proved by the fact of his having met with only three in his long and wide experience. I happen to have seen a case of this description while practising in Australia a few years ago and as it has not been previously recorded, and in respect of the size of the stone is somewhat exceptional, it may not be out of place to mention it in this connexion.

The patient was a man, aged 68 years, a gold-digger working on an alluvial field near Cowra, N.S.W., where I was then residing. He came to me in October, 1895, complaining of frequency of micturition, great pain and difficulty in passing his urine, and occasional slight hæmorrhage. He appears to have had symptoms of stone for six years, for during the first half of that period, so he informed me, he had been sounded for stone by well-known surgeons in Melbourne and in Sydney on some half-dozen occasions, but at that time no stone could be detected. He had then returned to the goldfields, where he remained until his sufferings became unendurable. During the three years

that had elapsed since the last examination the stone had evidently increased greatly in size, for when I saw him the sound came in contact with a stone immediately it entered the bladder and could not easily be passed around and beyond it. With the finger in the rectum a large calculus could be felt directly above the prostate, and its size and shape were roughly ascertained. By using the sound in the bladder in conjunction with the examination per rectum the more important information was gained that the stone was firmly fixed in the floor of the bladder, for it could not be rolled over or moved from its position in relation to the prostate by pressure either from the finger behind or from the sound in front.

Under the circumstances it was clear that the only way of removing the stone was by the suprapubic operation, and this the patient had no hesitation in submitting to for his sufferings were undoubtedly very great. I performed the operation a few days later at the Cowra District Hospital and removed a calculus weighing a trifle over four and a quarter ounces. The stone (which I still have in my possession) is egg-shaped with flattened anterior and posterior surfaces, and is rather bigger than a duck's egg, measuring eight inches in its largest circumference. It appears to be composed of uric acid with a slight deposit of phosphates. About two-thirds of the length of the stone projected into the cavity of the bladder, but its larger end was tightly held in a sacculus behind the prostate, and it was only after enlarging the incision in the bladder sufficiently to introduce the fingers of both hands that I could disengage the stone, the constricting edges of the sac having formed two deep lateral grooves in the calculus.

The operation was in all other respects carried out in the usual way, and the patient, notwithstanding his age, made a rapid recovery, returning to the diggings five weeks after the operation. When I last heard of him several months later he had had no further trouble. I have been told by practitioners of long Australian experience that cases of stone are exceedingly uncommon in that country. I do not know whether that opinion is confirmed by statistics.

I am, Sirs, yours faithfully,

RALPH C. BARTLETT, M.R.C.S. Eng., L.R.C.P. Lond.

Romsey, Hants, Dec. 21st, 1901.

THE BOYCOTT OF CONSUMPTIVES AT MENTONE.

To the Editors of THE LANCET.

SIRS,—The recent semi-official edict of the hotel proprietors at Mentone, in the Continental Bradshaw, intimating that persons suffering from consumption would not be received as guests, has created some excitement in the Riviera and many consider this virtual boycott of invalids as an unjustifiably harsh measure. This attitude of the leading hotel proprietors of Mentone is no new thing, however, though it has not before been so uncompromisingly expressed. It must be remembered that the character of Mentone as a winter resort has materially changed in the last 20 years or so. The history of Mentone, so far as foreigners are concerned, may be divided into three distinct phases. For many years after the late Dr. J. H. Bennett (the tutelary genius of Mentone) "invented" and made Mentone it was regarded as an invalid resort pure and simple, and in the case of consumptive patients ordered to winter abroad the choice of the faculty was practically limited to Mentone or Madeira. Its great vogue as the Mecca of the consumptive gave the place a distinctly funereal reputation, and it was erroneously supposed that the town was simply a consumptive preserve. Everyone remembers Mark Twain's witticism that but for an occasional funeral there would be no life in the place, while the famous French romancer, M. Guy de Maupassant, had much to do with the perpetuation of the "Cave of Despair" legend when he wrote: "This charming and balmy country is the hospital of society and the flowery cemetery of aristocratic Europe. How truly in every part of the world this lovely and terrible spot must be accursed, this ante-room of death, perfumed and sweet, where so many humble and royal families, burghers or princes, have left someone, some child on whom they concentrated all their hopes and lavished all their love and tenderness." Then came the second stage in Mentone's history, when it became a quiet and retired resort, much frequented by non-invalid visitors who objected to the expense of ultra-fashionable Cannes and the gaiety and bustle of Nice, the metropolis of the Riviera. For many years, too, it was the favourite resort of overworked clergy attracted by the combination of cheap living and lovely scenery.

Of late years a still more marked change has taken place. Mentone has become distinctly fashionable and consequently almost as expensive a residence as Nice or San Remo, though less so than Cannes or Monte Carlo. Then its proximity to the latter place has made it popular with many frequenters of the casino who for obvious reasons prefer not to live actually under the shadow of the palace of fortune. There is no doubt something to be said for the hotel proprietors' point of view. The opinion, whether erroneous or not, now gaining ground, that Mentone is more or less a consumptive settlement would be obviously prejudicial to the interests of Mentone in general as a residential winter resort and to the hotel-keepers in particular. As a preliminary measure steps were taken to convince the public that this beauty-spot of the Riviera was not exclusively to be regarded as a Mecca for invalids. Finally, and within recent years, those interested in the hotel enterprise let it be understood that, taking a leaf out of the book of the Pontresina hotel managers (who have for many years tabooed phthisical visitors), no consumptive person would be admitted.

It must be remembered that Mentone is practically one great hotel—there are more hotels in comparison to the population than at any town in the Riviera, except Cannes and Monte Carlo. Hotel-keepers must live, and it is unquestionable that ordinary visitors will not patronise an hotel which is known to take guests suffering from consumption. Thus, to put it bluntly, as there are not enough invalids to go round, the bold alternative of mainly depending upon a consumptive *clientèle* as at Davos is impracticable.—I am, Sirs, yours faithfully,

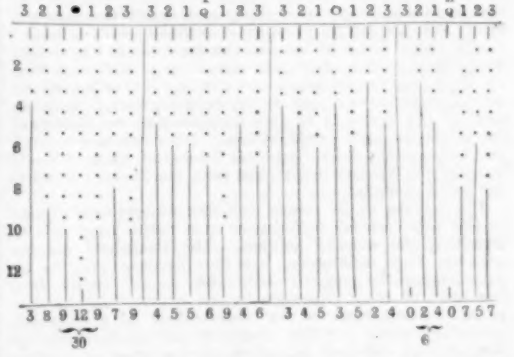
E. A. REYNOLDS-BALL,
Author of "Mediterranean Winter Resorts."

Dec. 19th, 1901.

WET DAYS.

To the Editors of THE LANCET.

SIRS,—May I invite your attention to some weather facts which, I think, are not without their medical bearings? In the rough diagram herewith each dot represents a day with 0·4 in. of rainfall or more at Greenwich; and the diagram



shows the distribution of such days (in the last 12 years, 1889–1900) in the week about new moon, first quarter, full moon, and last quarter respectively. Please note the following: (1) the preponderance about new moon at once strikes the eye; (2) the third day before last quarter and the day of last quarter were without cases of such rainfall; (3) while the three-day group before last quarter, and that ending with last quarter, had each six cases the three days about new moon had 30 (i.e., five times as many); and (4) it might be shown that the total number of such days in weeks about new moon is greater than in weeks about last quarter in every year of the 12 except two, when the numbers were equal. Whether these facts point to lunar influence or not

it will, I think, be interesting to notice whether the same relation persists in future.

I am, Sirs, yours faithfully,

ALEX. B. MACDOWALL, F.R.Met.S.

Ilfracombe, Dec. 20th, 1901.

THE LATE R. B. ANDERSON FUND.

To the Editors of THE LANCET.

SIRS,—Permit me to add a word to the appeal of Lord Stamford and Mr. Timothy Holmes in reference to the R. B. Anderson Fund. It seems a most melancholy and depressing thought that an appeal renewed at intervals over six months, made by men of the highest standing, backed up by the editors of the great medical journals and on behalf of a man who is one of the martyrs of the profession if ever there was one, should only result in the miserable sum of £80. This is both inadequate for the pressing needs of Mrs. Anderson and family and discreditable to the profession.

When Mr. Anderson was alive, when the memory of the gross injustice perpetrated on him (and through him on the profession) was fresh, we rewarded him for his heroic endeavours to secure justice in the usual way. He was looked on as a crank, a misguided enthusiast, a man with a grievance; or even worse, he was regarded with suspicion, and his motives were impugned. Ridiculous as it may seem to those who knew him, I have even met people who talked of him as a "paid agitator." The last few years of his life were spent in anxiety and poverty. I am afraid that sometimes he even had not enough to eat. It is a story we, as a profession, can only recall with shame, but it is not too late to do something for our credit's sake.

Especially would I appeal to those who take an interest in medical politics. I had the honour of Mr. Anderson's intimate acquaintance and never did I meet a man to whom the honour and interests of the profession were so dear. Even his own wrongs were swallowed up in his enthusiasm for the cause. When the rights of the profession were assailed in his person he defended them with a courage and tenacity that nothing could shake. He faced prison and financial ruin rather than compromise one jot of those rights. He hastened his own death by the privations and mental anxiety incurred in fighting a battle which was not his alone but that of the whole profession. We may think his conduct quixotic, that he was foolish in neglecting his family and financial interests in order to fight the battle. But those of us who in his place would have been less courageous (more prudent, if you will) may at any rate honour his undaunted courage and sympathise with his family, left in very distressed circumstances. Every man who reads this could afford a few shillings, and I trust for the honour of the profession that the fund will not be closed at anything like its present miserable state. I shall personally be glad to receive and forward to the treasurer any subscriptions which may be sent to me.

I am, Sirs, yours faithfully,

Cotfield House, Gateshead, Dec. 18th, 1901. ALFRED COX.

CANCER AMONG HINDOOS.

To the Editors of THE LANCET.

SIRS,—The letter of Colonel J. Maitland, I.M.S., in THE LANCET of Dec. 21st, 1901, p. 1763, has re-stimulated my previous intention, formed at the time that Mr. C. B. Keetley's paper appeared in THE LANCET (Oct. 5th, p. 939), of refuting the statement contained therein — to wit, "Hindoos (*sic*) suffer comparatively little from cancer." Dr. C. N. Saldanha, judging from his name, hies evidently from the Malabar coast, most probably from Mangalore, South Canara, and has had his medical education at the medical institutions of either Bombay or Madras. Not having a Medical Register at hand I am unable to assert definitely. I have had over three years' experience of surgical work on this coast, from the north of South Canara to the south of Malabar (Cochin) and can avouch for the fact that cancer, in its general signification, is common—indeed, very common—among the natives in this tract of the Madras Presidency. All the various organs and tissues obnoxious to this infection were represented: the penis, the jaws, throat, cervix uteri, breasts, &c. The most prevalent were cases affecting the lower jaw and the penis. Colonel Maitland speaks for the Madras General Hospital, where cases from all over the Madras Presidency come for operation.

Thus my local, though limited, and Colonel Maitland's general and considerably more extensive, experiences of the Madras Presidency do not bear out the sweeping generalisation attributed to Mr. Keetley's informant. Of course, the word "Hindoos" is employed by Mr. Keetley in a very loose sense and might have passed muster 50 years ago as of sufficient scientific accuracy; but in this more enlightened twentieth century this now obsolete and vague word should be replaced by one more in accordance with our advance in anthropology. Mussulmans are not Hindus, yet the former are subject to the same ills as the latter. The term "natives of India" would remove the objection. It was a pity Mr. Keetley did not refer to the annual reports of the medical institutions of India, obtainable at three or four accredited booksellers in London, before accepting the *ipse dixits* of Dr Saldanha.

I am, Sirs, yours faithfully,

C. DONOVAN, B.A., M.D., B.Ch. R.U.I.,
Captain, I.M.S.

Instow, N. Devon, Dec. 22nd, 1901.

PERMANGANATE OF POTASSIUM IN THE TREATMENT OF DYSENTERY.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Dec. 21st, 1901, Mr. W. B. Bennett of Liverpool records a most interesting case of diarrhœa in which he finally adopted the treatment of washing out the bowel by a weak solution of permanganate of potassium. I have been more than usually interested in this contribution of Mr. Bennett, and I think it will be of interest to him and to your readers to know that this form of treatment was successfully adopted in connexion with a mild epidemic of so-called asylum dysentery at this institution more than two years ago. At the time every conceivable remedy was tried with little or no effect, but no sooner had we adopted irrigation of the bowel by means of permanganate of potassium than our cases began to improve and we had no more deaths. From Mr. Bennett's reference to his experience of this method of treating dysentery in South Africa it would seem as if it had been employed here prior to his South African experience. It is to be regretted that these facts were not put on record earlier, but it is hoped that a short contribution on the subject will see daylight before long. The plan adopted here was to wash out the bowel morning and evening, and seldom had this to be repeated after the second day. In every case of severe diarrhœa with any tendency to straining we now always employ this method of treatment.

I am, Sirs, yours faithfully,

P. W. MACDONALD, M.D. Aberd.

The Asylum, Dorchester, Dec. 30th, 1901.

THE BRITISH ELECTRO-THERAPEUTICAL SOCIETY.

To the Editors of THE LANCET.

SIRS,—I write to ask those who are interested in this subject to support the movement started by Mr. Chisholm Williams for the formation of an Electro-therapeutic Society. The number of those who make use of electrical methods in medical work is steadily increasing in this country, and a society which will provide a meeting-place and an opportunity of exchanging ideas should be a very useful one. The list of those who have already sent in their names as supporters of the proposed society is a good one, and it includes a majority of the gentlemen who are in charge of the electrical departments of the London hospitals. I hope that many others who may be waiting to see how things are going to turn out will be encouraged to send in their names to Mr. Chisholm Williams, 20, Bedford-square, London, W.C., before Jan. 10th, or will attend the meeting to be held on that day for the formal establishment of the society.

I am, Sirs, yours faithfully,

Wimpole-street, W., Dec. 30th, 1901. H. LEWIS JONES.

To the Editors of THE LANCET.

SIRS,—The first general meeting of the above will be held on Friday, Jan. 10th, at the rooms of the Medical Society of London, 11, Chandos-street, Cavendish-square, London, W.,

at 8.30 P.M., to receive the report of the provisional committee.—I am, Sirs, yours faithfully,

Bedford-square, W.C., Jan. 1st, 1902. CHISHOLM WILLIAMS.

THE AGE OF VACCINE LYMPH.

To the Editors of THE LANCET.

SIRS,—It would serve a very good purpose if THE LANCET called urgent attention to the necessity for a date to be affixed to every tube of vaccine sent out by our recognised purveyors. This would be a very simple proceeding and highly proper. Of course, it requires no large stock of intelligence to see that this would condemn as useless much lymph which now filters through various sources to the too confiding practitioner. As it is, I know of nothing so unsatisfactory to ourselves and the public we serve as the present almost hopeless uncertainty of the age and consequent strength of much of the vaccine stocked and sold by secondary agents. Something ought to be done to put this matter on a fair basis.

I am, Sirs, yours faithfully,

Newington-green, N., Dec. 29th, 1901. GEO. J. B. STEVENS.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Plague Epidemic: the Mortality in Bombay and Elsewhere.—Death of Surgeon-General R. Harvey.—The Famine.—Final Report of the Plague Commission.

THE number of deaths throughout India from plague during the past week is somewhat less, the figures being 7961, as against 8431 during the previous seven days. For the corresponding week last year the deaths were only 2140. The decrease this week is chiefly in the Bombay Presidency, where 5655 deaths occurred, as compared with 5980 in the previous week. Last year there were only 560 deaths. The Punjaub returns 1646 deaths, as against 946 for the previous week and only 14 last year. Bengal returns 168 deaths, but last year, when the disease was raging in the Patna and neighbouring districts, there were 798 deaths. The province of Jummu, across the Punjab border, has become infected, but Kashmir proper is free. The number of deaths from plague in Calcutta remains about the same, but during the month of November there were 93 deaths, as compared with 81 during October. The disease is once more spreading in Bangalore, not only in the city but in the cantonment. In Bombay city there is not much change. 177 deaths being recorded for this week, as against 181 for last week, but the general mortality keeps high. The present death-rate is 52·93 per 1000. For the year 1900–1901 the death-rate of Bombay city was no less than 96·56 per 1000 by the old census and 102·25 per 1000 according to the recent one. This is three times the average death-rate before the era of plague. The infant mortality is enormous. Of 79,350 deaths 13,492 occurred among children of one year of age and under.

The news of the death of Surgeon-General R. Harvey, C.B., D.S.O., has been received with deep regret throughout India. He was very popular and his ability was unquestioned. He is reported to have died from peritonitis. In accordance with his special wishes his remains were cremated and the ashes were buried in the grave of his little daughter at Simla. As Surgeon-General L. D. Spencer has previously officiated as Director-General it is probable that he will be appointed to the post left vacant by the death of Surgeon-General Harvey.

During the past few weeks the famine conditions have so far improved that at present there are only about 90,000 persons under relief. The details are: Madras, 2043; Bombay, 47,508; Rajputana, 94; Baroda, 26,283; and the Bombay Native States, 16,400.

The conclusions arrived at by the Plague Commission in its recent and final report have been anticipated by most of the authorities in India for some time. The mild measures now practised are almost entirely in accordance with its recommendations. Medical examination of travellers is still carried out in some places—for some months past at Poona—but its value has apparently been negative. The conflict of opinion between the medical and civilian members of the commission concerning administrative control is natural—the civilian members on behalf of their service being jealous of the loss of power in administration. It is not generally known in England how comparatively subordinate the medical services are in India. That they are so is proved by so many of the plague appointments being held and the reports written by military and civilian officers. The scheme for the sanitary administration of India is one of the best suggestions in the report.

Dec. 6th, 1901.

THE ORGANISATION OF THE PROFESSION POPULAR ERRORS IN REGARD TO CLUB PRACTICE.

(BY OUR SPECIAL COMMISSIONER.)

THE *Daily Express* has a large circulation throughout the kingdom. It is published at the popular price of one halfpenny and professes to advocate progress in every direction. Recently it published an article entitled, "Poor Men's Doctors," which bears the impress of sincerity and seems to have been dictated with the object of defending the interests of the many against the selfishness of the few. In this instance the selfish few are the members of the medical profession who, by inference, are accused of having formed a sort of oligarchy or trade union so as to fill their pockets at the expense of the poor. The case is not stated in these plain words, but that is the moral which will evidently be deduced from the description given. It might be thought that the most elementary sense of justice would suggest the advisability of taking into consideration the other side of the question. Nevertheless, there is not a single fact, not a single argument, brought forward in defence of the medical profession. In THE LANCET alone there have been hundreds of columns published on the subject, but evidently the author of the article in the *Daily Express* has not read one of these nor does he seem to have questioned any member of the various medical unions that exist in all parts of the country or to have consulted any of the numerous reports and documents which these medical organisations have issued. The publication of an *ex-parte* statement is not the way to promote the cause of progress. It can but tend to envenom the situation. True progress can only be achieved by hearing all sides and then by striving to harmonise conflicting interests. The statements of the *Daily Express* are important, not merely because they have been published in a paper which has a wide circulation, but because they echo opinions which, however erroneous, are widely held by a large though misinformed section of the public.

The *Daily Express* complains of the decision of the General Medical Council, which it inaccurately entitles the "British Medical Council," in regard to the case of Dr. R. Rendall of Great Yarmouth. It qualifies as "ridiculous words" the terms "infamous conduct in the professional sense," but it has nothing whatsoever to say as to the technical point at issue—namely, whether medical men should allow paid agents to canvass for patients on their behalf. The effort, however, to put an end to touting for patients deals, we are told, "with a principle concerning the health and welfare of at least 2,000,000 persons." This is doubtless true, but it affects this great number of people in a manner calculated to protect their best interests by securing for all better and more careful medical attendance. Then follows the statement that the 2,000,000 and more members of medical clubs are "workmen who under ordinary circumstances would be unable to pay for medical attendance and would be forced to apply to the parish or to throw themselves on the bounty of benevolent societies." Fact after fact, case after case, and article after article have been published in these columns and elsewhere to prove that such a statement is absolutely false; but it is not necessary to refer to this great mass of evidence—the falsehood of the statement is clearly demonstrated by the medical clubs and friendly societies themselves, for if this assertion were true they would not so strenuously object to establish a wage-limit.

The position is very simple, the case is very clear. The darkness is caused by the perverse manner in which the real issue is systematically concealed. Medical practitioners have no objection to attending the genuine poor for one penny per

week, or for less, or even for nothing. Indeed, if this were merely a financial question it would be a distinct monetary advantage to the medical profession that the poorer classes should subscribe a penny per week. Their medical attendants would then get at least a part of this penny, while in the majority of cases they would get nothing at all if it were not for these weekly payments. But, of course, this advantage disappears at once where the wage-limit is not imposed; for it is the thrifty and well-to-do artisan and the economical tradesman, rather than the very poor, who join notably the friendly societies. Surely the general public should be able to understand the very simple, matter-of-fact, business-like statement made over and over again by medical practitioners. Speaking generally, the medical practitioner expects, and is willing to do, a great deal of gratuitous or underpaid work. He would like to devote as much time and attention to the patients who do not pay or only pay inadequately as to those who pay full fees, but if he is to be deprived of those patients who can afford to pay the usual fees, on what is he to live while he attends to those who cannot or do not pay? In trying to do away with this abuse the medical profession is defending the best interests of the poor. By refusing to establish a wage-limit the medical-aid organisations and clubs are robbing the poor of the full and careful attendance which the medical men are willing, even eager, to give them. There are towns where a third and, in some cases, more than half of the population do not pay any medical fees. Nevertheless, the medical practitioner must live; and, as a natural consequence of this abuse, he must make up for the loss of paying patients by an enormous increase of club patients. There are some club medical officers who have 5000 or 6000 persons down on their books; and for one penny per week, and often for much less than a penny, they must attend to those among them who are ill or, as often happens, who only imagine they are ill. What must be the inevitable result of so much underpaid work?

The public, unfortunately, do not realise to what an extent this work is underpaid, and while much sympathy has been lavished on the sweated tailor, sempstress, or 'docker, but little consideration has been shown towards the sweated club medical officer. Yet in the series of articles on "The Battle of the Clubs" numerous and precise facts were given. These were reprinted in a cheap popular form. They have been before the public for four or five years and have never been contradicted. As an incident in point, when dealing with the Walsall Medical Association [1] it was shown that the medical officer of that amalgamation of friendly societies paid 6115 visits and gave 13,025 consultations to the members during the year 1895. For all this work he was paid a salary of £168. The adult members paid 3*s.* 6*d.* per annum and the juveniles 2*s.*, and out of this the medical officer received but 1*s.* 1*d.* per member. As a result the pay did not on an average amount to 2*d.* per visit or consultation. If, however, we add the value of the house, taxes and gas, &c., provided for the residence of the medical officer the average received for advice given at the surgery or at the homes of the patients does not amount to 2½*d.* per consultation. In regard to the case of Dr. Rendall at Great Yarmouth it was stated that the members paid 4*s.* 4*d.* a year and that 10 per cent. of this sum was given to the canvasser and that another 10 per cent. was retained to cover the cost of management, so that no large profit was sweated out of the medical attendant. But this is not the case elsewhere. At Leicester for many years the medical officers of the Leicester Provident Dispensary did not receive more than 1*s.* 9*d.* per annum per member, and at Coventry 1*s.* 10*d.* This sum, out of the 4*s.* 4*d.* which the members pay, is very far from the 80 per cent. which it is said that Dr. Rendall obtained at Great Yarmouth. But in dealing with the Battle of the Clubs at Portsmouth [2] I described the financial position of the most popular club medical officer in the town who received the entire sum which the members subscribe. The following is what I then wrote: "He calculates that he is occupied three hours per day in his own surgery receiving club patients, and some of them are sufficiently well off to ride to his surgery on their bicycles. Then he has to see about 10 club patients per day in their own homes. Altogether his club patients take up about five hours per day, and for this he receives just upon £1 per day. The dispenser he has to keep and the medicine he has to supply cost him about a third of this sum. Five hours per day at £1 equals 4*s.* per hour, and deducting the cost of medicine, &c., we get a net profit of about 2*s.* 8*d.* per hour of professional work. The fee for each consultation, including medicine, amounts in this case to from 4*d.* to 5*d.* Nevertheless, the members of these clubs imagine that their medical officers are very well paid and rapidly accumulate fortunes. This is especially the case when the medical man keeps a carriage. They do not realise that a carriage costs 10*s.* a day, and that even at this price it is often about the cheapest way of getting over the 20 or more miles that have to be travelled in the course of the day in order that he may see all his patients."

Under these circumstances it will readily be understood that the interest of the club medical officer is to get as many subscribers on his list as possible. On the other hand, to make the system pay he must give the patients the cheapest possible medicine, he must treat them roughly, so as to discourage their coming too often, and he must despatch each case with the greatest speed. Such economic conditions must tend to degrade the medical profession. Supposing every club medical officer to be a self-sacrificing saint ready to starve himself for the benefit of others, would it be right even for a saint to toil in such a manner for those who can afford to pay the usual fees? At Leicester it was computed that 75 per cent. of the entire population escaped the necessity of paying medical fees when ill. Three-quarters of the population are in receipt of pure charity or poor relief, or belong to clubs, friendly societies, &c. The minimum fee in private practice has not been fixed in an official manner, but nevertheless it may be set down at 1*s.* 6*d.* per consultation given at the practitioner's surgery and 2*s.* 6*d.* for every visit paid at the patient's house. In both cases this includes the medicine which the medical practitioner himself dispenses and supplies. It should be clearly established and acknowledged that any one who pays less than this minimum is in receipt of charity. Will it be maintained that three-quarters of the population of Leicester are worthy subjects for charity? On the other hand, if half or two-thirds of these persons paid at least the minimum fee it will readily be seen that the medical practitioners could then afford to give proper attention and good, even expensive, medicines to the remainder. To attain this end a wage limit must be strictly enforced—and such a measure is urgently needed in the interests of humanity and of science. It is difficult to blame a medical officer who neglects club patients when he knows that all the time he is being defrauded and exploited. At one large town I came across a club medical officer who contrived to see 60 patients in the course of an hour. He posted his wife, watch in hand, outside the surgery door. At the expiration of a minute she knocked at the door to make the patient hurry away. Is this not a degradation of science? Is this rush and hurry in the true interests of humanity? And yet, at 2*d.* or so a consultation, what more can the patients expect? If, however, half of these patients paid 1*s.* 6*d.* a consultation then the average income of the medical officer would have sufficed to enable him to give to the other half equally careful and full attention. Thus the claims of humanity would have been better satisfied; on the other hand, and from the point of view of the advancement of science, the medical officer could carefully study his cases and thus extend his knowledge.

Against such a course there is one argument. It may be urged that many artisans, small tradesmen, shop assistants, &c., can very well pay 2*s.* 6*d.* fees for ordinary illnesses of short duration, but not for more serious cases where constant and prolonged medical attendance is necessary. Undoubtedly this is so, but the hospitals are available for many of these more serious cases and there is no objection to a system of insurance which does not employ and exploit medical practitioners. A large section of the population are already insured against sickness and receive a sick allowance. It is only necessary to increase this insurance so that it may provide, not only a sick allowance for the maintenance of the patient, but a further sum so that he may be able to pay at least the minimum medical fee and thus be free to choose the medical attendant whom he may prefer. The law of competition would ensure for the patient the best possible medical attendance, for every practitioner naturally strives to preserve his paying patients. With the club system the position is just the reverse, for it best pays the medical officer to give his patients the least possible attention,

[1] THE LANCET, April 25th, 1896, p. 1168.
THE LANCET, Sept. 21st (p. 757) and 28th (p. 814), 1895.

Again, it must be repeated that club practice institutes economic conditions that tend to the degradation of the profession. Therefore, it can only be tolerated as a charity, and, like many other charities, it will continue to be abused unless a strict wage-limit can be established and maintained.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Oxygen and Hydrogen.

AT the last meeting of the Manchester Literary and Philosophical Society Professor H. B. Dixon stated that Mr. H. Brereton Baker had succeeded in making a mixture of oxygen and hydrogen so pure that it would not explode when the vessel containing it was raised to a red heat or when a silver wire was melted in it. In one case some water was gradually formed, so that the explosion of the gases would seem to depend on the presence of some impurity other than steam itself.

The Owens College Associates.

At a recent meeting of the Associates of Owens College Mr. William Thorburn, F.R.C.S. Eng., was re-elected a governor of the college. Their annual general meeting was held on Dec. 18th, 1901. That the Associates are not devoid of ambition is shown by the passing of the following resolution:—

That in the opinion of this meeting steps should now be taken to secure that there should be, as originally proposed by the Owens College, an independent university in Manchester.

A resolution was also passed—

That in the opinion of the Associates the governors of the college should include women.

The late Henry Browne, M.D. Lond., M.R.C.S. Eng.

By the death of Dr. Henry Browne Manchester has lost one of her oldest physicians. He died at his residence in Victoria Park on Dec. 28th, 1901, a few weeks before he had completed his eighty-fourth year. For many years he was one of the physicians to the Manchester Royal Infirmary and prior to this he was a member of the honorary staff of the Chorlton Dispensary. The last appointment he held was that of honorary physician to the Mauldeth Hospital for Incurables, an institution in which he took much interest. Though a man of much culture and wide reading he was not a voluminous writer, but he published a volume many years since, "On the Laws of Health and their Correspondence with Revealed Truth." He also wrote a paper on "Oral, Gastric, and Duodenal Dyspepsia," and one on "Positive Nosology" that appeared in the *British Medical Journal* in 1867. He was a man of deep religious feeling and of unostentatious and refined tastes, and for many years he was well known and respected as a painstaking, conscientious, and well-informed physician, though, as he had for several years retired from the practice of his profession, he belonged rather to the past than to the present generation. As one of the local papers says: "Of a quiet and gentle disposition, Dr. Browne was a worthy example of the old type of family physician, and many of the older generation of Manchester citizens will regard his death as a personal loss." He was always much interested in Biblical literature and, as is probably rare in his profession, was a skilled Hebrew scholar.

Macclesfield Infirmary.

The deadlock at the Macclesfield Infirmary is over. There was a special meeting of the governors on Dec. 23rd, 1901, when it was proposed to give Miss Clarke a month's notice to terminate her engagement, but the motion was lost by six votes to three, two of the governors not voting. One of the speakers, evidently referring to the position taken by the medical staff, said in the course of his speech, "The question was, were they going to be governors or were they going to be puppets?" It seems almost hopeless to make such people see that this is not a mere struggle for mastery on the part of the staff, but that even those who do not object to the movement in favour of women doctors *per se* feel that the mere fact of sex and the instinct of decency set some limitations to the field that can be occupied by women doctors, that there are certain classes of cases occurring in all general hospitals quite unfit for them to treat. It is not encouraging to see such letters as one that has appeared in the *Manchester Courier*, signed "James P. Rountree, Werneth Vicarage," in which the writer speaks of "the domination and bigotry" of the medical staff, &c. It would seem as if some even of the clergy were smitten with impenetrable blindness. Miss Clarke has, however, relieved the governors from their difficulty by resigning her position. The resignation was accepted and a testimonial fund of £100 will be subscribed by the governors. In response to a letter from Dr. C. Averill with reference to the appointment of Miss Clarke's successor, "it was agreed that the applications should be handed to the honorary medical staff in the ordinary course for them to select three candidates from." It is quite possible to sympathise with Miss Clarke and to congratulate her on her escape from a painful position and at the same time to feel that the thanks of the profession are due to the medical staff for the decided stand that they have maintained.

Dec. 31st, 1901.

WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

The Alfred Hughes Memorial.

THE permanent usefulness of the splendid collection of anatomical dissections and specimens which was presented some years ago to University College, Cardiff, by the late Professor Alfred Hughes is now assured. Mrs. Hughes has, as mentioned last week, added £1000 to the £800 subscribed by Professor Hughes's friends for the endowment of the museum, which is to be called the "Alfred Hughes Anatomical Museum." A memorial medal is also to be awarded in June of each year in the anatomy class of the College.

Glamorganshire Asylum.

An additional block to accommodate 100 female patients is to be erected at a cost of £5000 in connexion with the Glamorganshire County Asylum at Bridgend. At present patients are received from all parts of the county, including Cardiff and Swansea, an arrangement which will cease in March, 1904, when it is anticipated that the new asylum about to be erected by the Cardiff Corporation will be completed.

River Pollution.

The Glamorgan County Council has appointed an inspector at a salary of £90 per annum to assist the medical officer of health (Dr. William Williams). His principal duties will be to take samples of water and to collect evidence as to the pollution of streams and rivers. Hitherto the council has not been conspicuously successful in dealing with river pollution within the county.

Aberystwith Workhouse.

Mr. G. R. E. Bonsall, the medical officer of the Aberystwith workhouse, reported to the board of guardians on Dec. 1st, 1901, upon the absence of proper receiving wards and upon the defective ventilation in the sick wards and dormitories and stated that an improvement in the condition of the house would tend to prolong the lives of the inmates. The board has, therefore, decided to erect a new workhouse and to sell the existing buildings which are situated about a mile from the town.

Navvies' Huts as Common Lodging-houses.

The lack of a precise definition of a common lodging-house has frequently led to the withdrawal from supervision of many buildings which for all practical purposes are identical with those lodging-houses which are registered and regularly inspected. The men employed in the works connected with the restoring of the Thames and Severn canal are housed in huts erected within the area of the Cirencester Rural District Council and the medical officer of health (Dr. Francis Bond) is of opinion that these huts should be registered as common lodging-houses subject to by-laws and to the common lodging-house sections of the Public Health Act, 1875. The district council, however, refuses to accept this view and has merely asked the contractors to give an undertaking that the huts shall be pulled down upon the completion of the works and that the inspector of nuisances shall have power to visit them at any time. The Cirencester District Council can hardly realise what this neglect of a statutory obligation may mean. It is now generally recognised that one of the most common methods

of spread of infectious diseases, and especially of small-pox, is through the wanderings of navvies and of other persons who tramp from one town to another, so that if there is one particular class whose surroundings should be carefully looked after it is surely such as these very men who in the Cirencester district are to be allowed to perpetrate—from a public health point of view—any mischief they choose.

Winsley Sanatorium for Consumptives.

The Bath City Council recently determined, if it were legal, to make a grant to the proposed sanatorium for phthisical patients' at Winsley, near Bath. The Sanitary Committee has taken counsel's opinion upon the subject, and at their meeting held on Dec. 23rd, 1901, it was reported that Mr. Macmorran, K.C., had stated that the proposed agreement could be entered into under Section 131 of the Public Health Act, 1875.

Dec. 30th, 1901.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

University of Glasgow.

THE annual statistical report of the Glasgow University, prepared in accordance with the requirements of the Universities Act and embracing the period from Oct. 1st, 1900, to Sept. 30th, 1901, has just been issued. The total number of matriculated students during the academic year was 2038, of whom 350 were women. Among the new foundations acknowledgment is made of the institution of the Joseph Coats scholarship in memory of the late professor of pathology, also of a grant of £200 from the Bellahouston Trustees for the purchase of apparatus in connexion with the chair of materia medica. It is further intimated that subject to certain life-rents a residue estate amounting to some £10,000 has been bequeathed to the University for the endowment of a chair in a subject to be determined by the trustees under the will. The report enumerates books added to the library during the year which have reached a total of 2642 volumes. It also gives the salaries of the various professors. In the medical faculty these range from £1645 paid to the professor of anatomy to £215 which is the remuneration received by the professor of clinical surgery.—At a recent University Club dinner Professor John Cleland, in replying to one of the toasts, made an energetic speech, in which he justified the scientific teaching of anatomy, and urged that the subject taught on these lines was not only a mental discipline suitable for inclusion within a university curriculum but that it was the necessary basis for practical medicine and surgery. If anatomy was to be presented on purely utilitarian lines it might be left to the Colleges of Physicians and Surgeons, but studied in a broader light it became an instrument of mental culture and pursued for its own sake it brought a reward in the shape of increased insight and breadth of view. It was the duty of a university, he urged, to teach everything and to maintain the highest standard both in aim and method. Speaking of embryology, Professor Cleland said that the experimental study of this subject was a standing refutation of materialism, and that anatomy was the true foundation of natural theology. Even monstrosities, properly regarded, were manifestations of the beauties of nature, and he hoped that it would soon be the custom for every family to have its own anatomical museum.—It is announced that Professor J. G. McKendrick, who is at present at his residence in Stonehaven, is suffering from an attack of erysipelas which will prevent him for a time from returning to his academic duties.

Proposed Small-pox Hospital in Glasgow.

The Glasgow Corporation have approved of the proposal to erect two pavilions for small-pox patients on the Letham Hill site. In the meantime the opposition to the scheme by the Lanarkshire County Council continues, and the question will require the attention of the Local Government Board of Scotland. The opposition of the council is based upon the proximity of the proposed hospital to inhabited houses and to the fact that the site is close to a large reservoir from which water is supplied to a considerable residential district.

Anderson's College Medical School, Glasgow.

The fifty-fourth annual dinner of the students of this school was held on Dec. 20th, 1901, under the presidency of Professor R. S. Thomson. The attendance was a large one and included, in addition to the teaching staff, representatives of the University and the other extra-mural schools. In the course of the evening it was stated that there had been a considerable increase in the first-year students and that the college generally was in a flourishing condition.

Local Scientific Societies, Glasgow.

At a recent meeting of the Microscopical Society of Glasgow the President, Dr. Rankin, gave a demonstration of the processes of preparing objects and tissues for examination with the microscope. He also described the several methods of using staining agents and showed a Cambridge rocking microtome with improvements devised by himself. The demonstration was greatly appreciated, and Dr. Rankin was awarded a hearty vote of thanks.—The following have been elected to the honorary membership of the Glasgow Natural History Society: Professor Cleland, F.R.S., Dr. Samuel Chisholm, Professor J. W. H. Trail, F.R.S. (Aberdeen), and Mrs. David Robertson.

Western Infirmary, Glasgow.

The usual Christmas entertainment for nurses and patients was held in this infirmary on Dec. 26th, 1901. A large number of gifts were distributed in the various wards, and addresses were delivered by the Lord Provost and Councillor J. H. Dickson, chairman of the directors. It was stated that every bed in the hospital was occupied and that no fewer than 300 patients were awaiting admission.

Dec. 31st, 1901.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

National Association for the Prevention of Tuberculosis: Dublin Branch.

AT the last meeting of the Executive Committee held at the Royal College of Physicians of Ireland, Sir John W. Moore being in the chair, special attention was given to the statements in reference to tuberculosis contained in the report of the Registrar-General for Ireland for 1900. From these it appeared that among diseases tuberculosis stood highest as a cause of mortality and claimed 12,848 victims during the year. 10,076 deaths were due to pulmonary tuberculosis, 1026 to tabes mesenterica, and 997 to other forms. The total deaths from tuberculosis represented a rate of 2·88 per 1000, being 0·03 per 1000 in excess of the previous year. The rate from pulmonary tuberculosis was 2·26 per 1000 living. The phthisical death-rates in the four provinces were: Leinster, 2·50; Munster, 2·32; Ulster, 2·24; and Connaught, 1·62 per 1000. The increase of tuberculosis in Ireland was shown by the following returns:—

	Rate per 1000 of estimated population.
Average for 10 years, 1871–80	2·6
Average for 10 years, 1881–90	2·7
Average for 9 years, 1891–99	2·8
Average for 29 years, 1871–99	2·7
Average for 1900	2·9

The above figures showed that the mortality from tuberculosis in Ireland was not decreasing, as had been stated, but was gradually increasing. The want of any accommodation, practically speaking, for cases of advanced consumption other than the workhouse infirmaries accounted for the following results in the unions. In the North Dublin Union the death-rate from tuberculosis during the year 1900 was 5·7 per 1000; in the South Dublin Union it was 5·5; in Belfast, 4·4; in Londonderry, 2·9; in Waterford, 3·6; and in Limerick, 3·4.

The Royal College of Surgeons and the Royal College of Physicians, Dublin.

At the present time negotiations are proceeding in a semi-private way in reference to the question of extending the examinations of the Royal College of Surgeons in Ireland and of the Royal College of Physicians of Ireland. For a long time it has been felt to be anything but creditable to Ireland that so many medical practitioners, chiefly educated in that country, take their medical qualifications elsewhere, and these for all practical purposes may be regarded as Irishmen. In his evidence at the recent Royal Commission on University Education in Ireland Dr. W. A. McKeown, basing his statistics on the Medical Directory for 1900, showed that

there were 477 medical practitioners in Ireland (the total number in that country is 2575) who had taken their qualifications outside that country, and of these the great majority—370—were diplomates of the Scotch Licensing Bodies. The attractiveness of these Scotch diplomas is twofold—they are cheap and they are easier than most other portals by which students enter the medical profession. The fact is that candidates who fail at the Royal University of Ireland or who never aim at its high degrees, and those who cannot afford the expense at Trinity College, Dublin, wander from all parts of Ireland to Scotland in search of the triple qualification, and an Irish medical teacher constantly finds that the weak members of his class leave finally for "the land o' cakes" to get medically qualified. It is with an idea of stopping this exodus that a move is now being made by the Irish Colleges (of Physicians and Surgeons) to get some of the provincial schools to join with them in providing an Irish portal for those medical students to enter the profession. If this new scheme is to be successful two things are absolutely necessary. There will have to be final examinations in the provinces as well as in Dublin, conducted either simultaneously or alternately, and in each subject of the examinations there will have to be a provincial examiner for every one from Dublin. In no other way will there be any chance of success for this new venture. Many thoughtful members of the medical profession deplore the fact that, apart from all the colleges and universities, there is not in the British Empire, as there is in Germany, a State examination which every student should be compelled to pass before being allowed to enter on practice.

Londonderry Asylum.

At the monthly meeting of the committee of management of this asylum held on Dec. 20th, 1901, the resident medical superintendent reported that an outbreak of typhoid fever had occurred on the female side of the institution, affecting two patients and one female attendant. There were also many cases of sickness and sore-throat. 16 attendants had been more or less off duty from sickness during the month. The place is overcrowded, and the inspectors of lunatics have threatened to recommend the Lord Lieutenant to withdraw the capitation grant if the committee does not proceed without delay to provide accommodation for the inmates of the asylum. It was decided to adopt the plans submitted for the proposed extension at Gransha and tenders for building are to be sought.

Death of Mr. Robert Cromie, C.M. Glasg., J.P.

One of the very oldest medical practitioners in Ulster, Mr. Robert Cromie, J.P., died at his residence, at Clough, county Down, on Dec. 18th, 1901. Born in the neighbourhood of Rathfriland, Mr. Cromie studied at Glasgow, where in 1834 he took the degree of Master in Surgery. Returning home he settled at Clough, county Down, where he was dispensary medical officer and where he enjoyed an unusually extensive practice for a lengthened period. No man was better known in county Down (the Yorkshire of Ireland) than was Mr. Cromie, where he was a justice of the peace. A man of great ability, of striking individuality, and with marked gifts, he was very popular with all classes of the community. Mr. Cromie was buried on Dec. 21st, a great number of his friends and former patients attending to show a last token of respect to one who had been so kind to them on many an emergency.

Banbridge Workhouse.

Dr. W. Chancellor has been appointed medical officer to the Workhouse Infirmary, Banbridge, county Down, in place of Dr. Waddell (resigned).

Dec. 31st, 1901.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Death of Dr. Gougenheim.

THE death of Dr. Gougenheim, who had recently retired, is announced. He was one of the few medical men in Paris who had taken up laryngology and rhinology as a speciality. His department at the Lariboisière Hospital, to which institution he was physician, was often thronged with patients and learners, for it was the only hospital clinic in Paris where the diseases of the throat and nose could be studied. Dr. Gougenheim was a Chevalier of the Legion of Honour.

Statistics of the Population of France for 1900.

The official report upon the population of France for 1900 shows that the excess of deaths over births was 25,988, whereas in 1899 the births exceeded the deaths by 31,394. The result for 1900 is due to two causes. Firstly, there were fewer births—namely, 827,297 in 1900, as against 847,627 in 1899—and secondly to an increase in the number of deaths—namely, 853,285 in 1900, as against 816,233 in 1899. Thus for the year 1900 there were 20,330 births fewer and 37,052 deaths more than in 1899. The death-rate per cent. of the population for 1900 was 2·21, an increase over the mean for the decennium 1890–1899, when it was only 2·16 per cent.

A Potato Hydrocarbon Diet in Diabetes.

Dr. Dujardin-Beaumetz recently put forward the theory that of all starchy bodies potato is that which may be taken by diabetic persons with the least inconvenience. Although this theory has not been universally received, yet M. Mossé, professor at the Faculty of Toulouse, discussed the point before the Academy of Medicine at the meeting held on Dec. 10th. In his opinion potato is not merely slightly harmful but actually beneficial and constitutes an essential element in the treatment of diabetes. M. Mossé gives potato in the place of the ordinary ration of bread in the proportion of three times the weight of potato—i.e., from 500 grammes to two kilogrammes per diem. Far from increasing the sugar the use of potato diminishes its output and chemical examination of the urine shows that the carbohydrates of the potato are absorbed and utilised. The results are better in that form of diabetes which is marked by thinness than in the fat form. The *rationale* of the treatment is probably that potato contains twice the amount of water weight for weight that bread does and nearly the same quantity of potassium salts. Therefore if a patient takes a weight of potato three times greater than his ordinary quantity of bread he takes six times as much water and three times as much potassium salts, while the quantity of albuminous and starchy matter remains practically unchanged. Potassium salts are an integral part of the alkaline treatment of diabetes and the good which they do easily counterbalances the harm done by the ingestion of the starchy matter. Under the potato treatment the sugar disappears, the general health improves, as does also the appetite, and if the patient is not cured he at all events lives under quite supportable conditions. M. Mossé's results will have great interest for sufferers from diabetes, as potatoes are within the reach of everybody's purse.

The Prophylaxis of Venereal Diseases.

In consequence of the excitement caused by the prohibition of the new play *Les Avariés*, which I have mentioned in a previous communication,[1] and owing to the foundation of a society for the furtherance of both hygienic and moral prophylaxis, the Minister of the Interior has just appointed a commission. This commission is to be charged to inquire into the various questions connected with syphilis and other venereal diseases, especially their prophylaxis. It will also inquire into the frequency of these diseases, into the condition and management of the various institutions existing in France for their treatment, and into the best means, both legislative and administrative, for preventing the spread of such complaints.

Dec. 31st, 1901.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Statistics of the Medical Profession in Germany.

ACCORDING to Hirschwald's Medical Directory, edited by Dr. Wehmer and quoted in the *Vossische Zeitung*, there are now 27,039 medical men in Germany, an increase of 560 over the number for 1900, which was 26,479. Since 1897 the increase of the profession is 2646 = 10·7 per cent.; that of the population in general is 6·1 per cent. 16,500 medical men reside in Prussia, 2724 in Bavaria, 1967 in Saxony, 1019 in Baden, 1009 in Würtemberg, 766 in Alsace-Lorraine, and the remainder in the smaller States of the Empire. In Berlin there are 2305 medical men residing, and it is interesting to note that the increase of the profession in the metropolis is rather less than in last year, being 43 = 1·9 per cent., only. Munich has 654 medical men, Hamburg 569, Breslau

[1] THE LANCET, Nov. 16th, 1901, p. 1357.

520, Dresden 428, Leipsic 418, Cologne 346, Charlottenburg 336, and Frankfort 331. In the larger towns a decrease in the number of medical men occurred only in Bremen. As to the age of the Berlin medical men there is one practitioner who qualified in 1842, while 18 others qualified more than 50 years ago. The latter class includes Professor Virchow, who qualified as early as in 1846. Of Berlin practitioners 40 qualified 49 years ago, 166 from 30 to 39 years ago, 278 from 20 to 29 years ago, 753 from 10 to 19 years ago, and 853 within the last 10 years. To every 10,000 of the population there are on an average 4·80 medical men, this number varying from 7·55 in Hamburg to 2·63 in Reuss. In Berlin there are 12·22 medical men for each 10,000 of the population. The number of dentists continues to increase from year to year. There were 1586 in 1901, 1489 in 1900, 1401 in 1899, 1327 in 1898, and 1238 in 1897. Of licensed pharmacies there are 5559, this number having increased by 100 as compared with that of the preceding year. In Berlin there are 167 pharmacies. For each 10,000 of the population there are 0·99 pharmacies.

Researches on Cancer.

A citizen of Frankfort has recently bequeathed to the municipal authorities of this town the sum of 500,000 marks, equal to £25,000, of which the interest is to be expended on researches concerning the etiology of carcinoma. The city of Frankfort has handed over these funds to Professor Ehrlich, the celebrated bacteriologist who is at the head of the institution of experimental therapy there. Apart from this legacy Professor Ehrlich has at his disposal other considerable funds for this purpose. In Berlin, as has been already reported in these columns, a committee exist for collective investigations on cancer. Professor Czerny, who is one of the committee, has recently issued a circular letter to all the surgeons of Germany asking them to state after what lapse of time on an average recurrence is wont to occur after the operation for cancer of the mamma. In this way the committee hope to get sufficient material to ascertain the duration of the latent period of the disease.

Dec. 28th, 1901.

Obituary.

JAMES JOSEPH TRACY, M.B., M.CH., B.A.O. R.U.I.

CORK has lost a well-known member of the medical profession by the death of Dr. J. J. Tracy on Dec. 26th, 1901. He was educated at the Queen's College, Cork, and graduated at the Royal University of Ireland in 1890. For a brief period he became an assistant in England, but returned to Cork, his native city, and was appointed surgeon to the Mercy Hospital. Subsequently he transferred his services to the medical side of that institution and was appointed physician. He took a great interest in the Cork Medical and Surgical Society, of which he was honorary treasurer, and his remarks in debates were listened to with much attention. He took a very active part in "the battle of the clubs" at Cork, and in the early days of the fight he was appointed one of the honorary secretaries of the medical organisation. When it was decided to draw up a code of rules to bind the local profession together Dr. Tracy displayed a wonderful prescience of the difficulties which were likely to occur and by his foresight considerably helped his profession. As the fight went on it was seen that it would be necessary to offer an alternative to men in humble circumstances who desired to become members of a club and it was decided to establish the Cork Medical Benefit Society. Dr. Tracy at once mastered the intricacies of the Friendly Societies Act, and mainly under his guidance rules were drawn up which readily obtained the sanction of the Registrar of Friendly Societies, and the Cork Medical Benefit Society became an established fact. Its membership is steadily increasing, and from every point of view it is a distinct success.

Last winter, acting on the advice of his medical friends, he decided to make a sojourn in the south of France for the benefit of his health. On his return it was seen that he was suffering from tuberculosis in an advanced stage, but with characteristic energy he worked on to the last. A week before he died he was visiting his patients. His funeral was most representative, his medical brethren attending in large numbers, the lord mayor and the high sheriff of the city being also present.

Medical News.

UNIVERSITY OF LONDON.—At the B.S. examination for honours the following candidates were successful:—

Surgery.—First Class: Felix Bolton Carter, M.D., University College; Arthur Edmunds (Scholarship and Gold Medal), King's College; and Thomas Copeland Savage (Gold Medal), University College. Second Class: Charles Archibald Scott Ridout, St. Bartholomew's Hospital; and Ralph Paul Williams and W. Halliburton McMullen, King's College. Third Class: Ernest Lewis Lilley, Charing Cross Hospital.

N.B.—The foregoing list, published for the convenience of candidates, is provisional only, and is not final until the reports of the examiners shall have been confirmed by the Senate.

DONATIONS AND BEQUESTS.—A donation from "H. M. E." of £500 has been received by the Chelsea Hospital for Women.

MEDICAL MAGISTRATE.—The Lord Chancellor has placed Dr. Henry John Mackay on the commission of the peace for the borough of Devizes.

EPSOM COLLEGE.—Mr. A. J. May of Epsom College has been elected to an open scholarship for Natural Science of the value of £50 at Sidney Sussex College, Cambridge.

A MEDICAL PEER.—Herr Coloman Müller, professor of medicine at the University of Hungary, chief physician of the Rochus Hospital, and organising secretary of the eighth Congress of Hygiene and Demography held at Budapest in 1894, has been elevated to the House of Magnates of Hungary.

VACCINATION PROSECUTIONS. — At the Truro Police-court on Dec. 23rd, 1901, several persons were summoned for neglecting to have their children vaccinated. Orders were made for the vaccination of the children within 14 days and for the immediate payment of 10s. costs, with distress or imprisonment in case of non-compliance.

BOARDS OF GUARDIANS AND ISOLATION HOSPITALS.—At the meeting of the Yeovil Board of Guardians held on Dec. 20th, 1901, a communication was received from the town council inviting the guardians to coöperate with the council in the enlargement of the isolation hospital. After a prolonged discussion the guardians decided that the duty of providing an isolation hospital for Yeovil, including paupers, whether inmates of the workhouse or not, rested with the town council as the sanitary authority of the district, and that the guardians were under no obligation to contribute towards the cost of such hospital further than by payment of the expenses of such paupers as might from time to time be in the hospital.

PRESENTATIONS TO MEDICAL PRACTITIONERS.—At Abercarn, Monmouthshire, on Dec. 14th, at a public meeting, Mr. Edmond Walsh, L.R.C.P. & S. Edin., L.F.P.S. Glasg., was presented with an illuminated address, a gold watch suitably inscribed, and a gold chain as a mark of respect and esteem on the occasion of his leaving the neighbourhood. — Mr. William Parson, M.R.C.S. Eng., M. & L.S.A., J.P., medical officer of health of Godalming, on his retirement from private practice was recently presented by his old patients and friends with a silver tea and coffee service in Louis XIV. style, a pierced silver cake basket, a tea urn, a tray, a silver lamp with column and base and Corinthian capital, and a Chippendale easy chair.

CONSUMPTION SANATORIUM IN WORCESTERSHIRE.—Earl Beauchamp is actively interesting himself in the movement for erecting an open-air sanatorium for the reception of consumptive patients in Worcestershire. His lordship has sent a cheque to the honorary treasurer (Dr. H. E. Dixey) of Woodgate, Malvern. Mr. George Cadbury has warmly endorsed the scheme and has given a donation of £100, with a promise of £200 annually towards maintenance. Mr. Alfred Baldwin, M.P., has sent £100, and a like sum has been received from Mrs. Williams, a former resident of Malvern; Mr. H. Howard, chairman of the Sanitary Committee of the county council, has given £50; Mr. James Atkins, £52 10s., and Dr. Dixey, £50. The estimated cost of a sanatorium with 48 beds is £12,500, but the committee intend to start in a small way by spending £5000 on sufficient accommodation for 20 beds. Committees are being

formed all over the county for the purpose of obtaining subscriptions, and the committee are hopeful of starting building operations in about three months' time.

CARDIFF AND COUNTY PUBLIC HEALTH LABORATORY.—The Cardiff and County Public Health Laboratory was established in the first instance in the year 1898 by the Glamorganshire County Council who spent about £500 in the erection of a suitable building and upon apparatus, &c. In June, 1899, the laboratory came under the joint control of the county borough of Cardiff and of the Glamorgan County Council, when the administration was placed in the hands of Dr. E. Walford (medical officer of health of Cardiff) and Dr. W. Williams (medical officer of health of Glamorganshire). The paid staff consists of a clerk to the joint committee, a bacteriologist (Dr. W. G. Savage), an assistant bacteriologist, and an attendant. The expenditure incurred by the committee from June, 1899, to the end of March, 1900, was £436, and for the year ending March 31st, 1901, it was £743. In the last report of the directors they state that 'during the three months ending Nov. 30th last 51 samples of water were submitted to chemical analysis and 77 to bacteriological examination; 178 specimens were examined bacteriologically—64 being for diphtheria bacilli and 60 for tubercle bacilli—and 31 specimens were submitted to pathological or chemical examination. Five medical practitioners are attending the public health lectures and are receiving practical laboratory instruction, while the classes for sanitary inspectors are being attended by 22 students.

BOOKS, ETC., RECEIVED.

BRITISH MUSEUM (NATURAL HISTORY), Trustees of, Cromwell-road, S.W.
A Monograph of the Culicidæ or Mosquitoes. Mainly compiled from the collections received at the British Museum from various parts of the world in connexion with the investigation into the Cause of Malaria conducted by the Colonial Office and the Royal Society. By Fred. V. Theobald, M.A., F.E.S. Two volumes and book of plates. Printed by order of the Trustees. Price not stated.

CHATTO AND WINDUS, 111, St. Martin's-lane, W.C.
Herbert Fry's Royal Guide to the London Charities. Edited by John Lane. Thirty-eighth Annual Edition. Price 1s. 6d.

FISCHER, GUSTAV, Jena.
Die Bakterien. Naturhistorische Grundlage für das Bakteriologische Studium. By John Schmidt and Fr. Weis. With a Preface by Professor Dr. E. Chr. Hansen, Carlsberg Laboratorium, Copenhagen. Price 7 marks.

HAY, NISBET, AND CO., Limited, 19, Queen-street, Glasgow.
Glasgow International Exhibition, 1901. Russia: its Industries and Trade. Issued by order of State Secretary S. J. de Witte, Imperial Russian Minister of Finance. Price 4s. 6d.

HIRSCHWALD, AUGUST, Unter den Linden, 68, Berlin.
Lehrbuch der Speciellen Pathologischen Anatomie von Dr. Johannes Orth. (Die Pathologische Anatomie des Auges. Bearbeitet von Professor Dr. Greeff. 1 Hälfte). Price 7 marks.
Atlas der Pathologischen Histologie des Nervensystems. Redigirt von Dr. Victor Babes of Bucarest. VIII. Lieferung. Lésions des cordons postérieurs d'origine exogène. (Suite.) Price M. 12.

KARGER, S., Karlstrasse, 15, Berlin.
Atlas der Krankheiten der Nase, ihrer Nebenhöhlen und des Nasenrachenraumes. By Privat-docent Dr P. H. Gerber. Achte (Schluss-) Lieferung. Price M. 6.

MACMILLAN AND CO., Limited, London.
The Healing of Nerves. By Charles A. Ballance, M.S., F.R.C.S., and Purves Stewart, M.A., M.D., M.R.C.P. Price 12s. 6d.

WARD, LOCK, AND CO., Limited, London, New York, and Melbourne.
Underground Watering of Plants and Gardens, to which is added hapters on the Culture and Propagation of Rose Trees. By John Grant. Price 1s.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.

BARBER, A., L.R.C.S.I., has been appointed Government Medical Officer and Vaccinator at Penrith, New South Wales.

BODY, HENRY MARTEN, M.R.C.S., L.S.A., has been appointed Medical Officer for the Sandford District of the Crediton (Devon) Union.

BYVE, J. G., L.R.C.P.I., L.R.C.S.I., has been appointed Certifying Surgeon under the Factory Acts for the Borough of Wenlock in the county of Salop.

CREED, Hon., J. M., M.R.C.S., M.L.C., has been appointed Chairman of the Visiting Committee for Institutions licensed under the Inebriates Act, 1900, New South Wales.

DAKIN, T. B., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory Acts for the Ulceby District of Lincolnshire.

DEANE, E. W., M.B. Melb., has been appointed Officer of Health for the Borough of Carisbrook, Victoria.

DOUDNEY, E., M.R.C.S., has been appointed Government Medical Officer and Vaccinator at Port Macquarie, New South Wales.

FENWICK, CHARLES, L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Cheriton Bishop District, Crediton Union.

FETHERSTON, R. H. J., M.D. Edin., has been appointed Officer of Health for the city of Prahran, Victoria, and Certifying Medical Practitioner under Factories and Shops Acts, Metropolitan District of Melbourne.

GOADBY, KENNETH W., L.D.S. Eng., D.P.H.Camb., has been appointed Bacteriologist and Lecturer on Bacteriology to the National Dental Hospital.

GRAHAM, A. W., M.B. Lond., has been appointed Medical Officer of Health for the District of Beaconsfield and Dalrymple, Tasmania.

GREEN, FREDERICK RING, F.R.C.S. Eng., L.S.A., has been appointed Honorary Consulting Surgeon to the Royal United Hospital, Bath.

HALL, J. N., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer of the Mayfield District of the Uckfield Union.

HAYCROFT, CHARLES H., M.R.C.S., L.S.A., has been re-appointed Medical Officer for the Coleridge and Colebrooke Districts of the Crediton Union.

JEROME, ERNEST J., L.R.C.P. & L.R.C.S. Edin., has been re-appointed Medical Officer of Health for the Camelford (Cornwall) District.

KNOTT, E. M., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer of Health for the Brixworth Rural District.

LACK, H. LAMBERT, M.D. Lond., F.R.C.S., has been appointed Aural Surgeon to the London Hospital.

LONERGAN, T. J., L. & L.M.R.C.P. & R.C.S. Edin., has been appointed District Medical Officer and Public Vaccinator, Northampton, Western Australia.

M'KENDRICK, G. BROWNLIE, F.R.C.P., F.R.C.S. Edin., L.F.P.S. Glasg., has been appointed to take charge of the Department for Kidney and Urinary Diseases in the Glasgow Public Dispensary.

MANLY, R. A. A., M.B. Melb., has been appointed Medical Officer of Health for the Shire of Lancefield, Victoria.

MUIR, W. C. C., M.B. Glasg., has been appointed Officer of Health for the Shire of Alberton, Victoria.

O'BRIEN, J. A., M.B. Glasg., has been appointed a Member of the Medical Board of Victoria.

O'FLAHERTY, L. S., L.R.C.P. Edin., has been appointed Public Vaccinator at Bulong, Western Australia.

PARDOE, JOHN, M.B., M.R.C.S., has been appointed Surgical Assistant to St. Peter's Hospital, Covent-garden.

POWNE, LESLIE, M.R.C.S., L.S.A., has been re-appointed Medical Officer for the Newton St. Cyres and Shobrooke Districts of the Crediton Union.

RIDOUT, C. A. S., M.B., B.S. Lond., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the North Staffordshire General Infirmary and Eye Hospital, Stoke-on-Trent.

ROWAN, T., L. & L.M.R.C.P. & R.C.S. Edin., has been appointed President of the Medical Board of Victoria.

SCOTT, A. T., M.B. Glasg., has been appointed Public Vaccinator for Whangaroa, New Zealand.

SCOTT, RICHARD JAMES HERBERT, F.R.C.S. Edin., has been appointed Honorary Consulting Surgeon to the Royal United Hospital, Bath.

SMITH, G. U., M.B. Lond., has been appointed Bacteriologist to the Cambridge Town Council.

SPRINGTHORPE, J. W., M.D. Melb., has been appointed Visitor to the Metropolitan Lunatic Asylums, Melbourne, Victoria.

STENHOUSE, A., M.A., M.B., B.Ch. Univ. N. Z., has been appointed Public Vaccinator for Blackstone, New Zealand.

STEVENS, THOMAS GEORGE, M.D. Lond., F.R.C.S. Eng., M.R.C.P. Lond., has been appointed Obstetric Tutor to St. Mary's Hospital.

STEWART, J. E. F., M.B. Glasg., has been appointed Officer of Health to Bayswater Local Board of Health, Western Australia.

TEAGUE, D. G. M., M.B. Edin., has been appointed Public Vaccinator at Kanowna, Western Australia.

TUCKER, JOSEPH, M.R.C.S., L.S.A., has been re-appointed Medical Officer for the Chawley District, Crediton Union.

WADE, CHARLES, L.R.C.P., M.R.C.S., has been re-appointed Medical Officer of Health for the Boscastle (Cornwall) District.

WINTER, W. H. T., M.R.C.S., has been appointed a Medical Referee under the Workmen's Compensation Acts, 1897 and 1900, and to act for the Wolverhampton County Court District of Circuit No. 25.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon, unmarried. Salary £150 per annum, with rooms, fire, lights, and attendance.

BOROUGH OF BOOTLE HOSPITAL FOR INFECTIOUS DISEASES.—Resident Medical Officer, unmarried. Salary £120 per annum, with board, washing, and apartments.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon, single. Salary £100 per annum, with board and residence.

COUNTY COUNCIL OF SALOP.—Medical Officer of Health. Salary £750 per annum.

DERBYSHIRE ROYAL INFIRMARY, Derby.—Assistant House Surgeon for six months. Salary of £30 for the six months, with board, residence, and washing.

DERWENT VALLEY WATER BOARD WORKMEN'S VILLAGE, Birchinlee, North Derbyshire.—Medical Officer.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—House Surgeon and Assistant House Surgeon. Salary, House Surgeon £100 per annum, Assistant £50 per annum, with apartments, board, and lodging.

DISTRICT ASYLUM, Mullingar.—Junior Assistant Medical Officer (female), unmarried. Salary £100 per annum, with board, apartments, attendance, and laundry.

DURHAM COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary £140, rising to £160, with board, laundry, and attendance.

ESSEX AND COLCHESTER HOSPITAL, Colchester.—Assistant House Surgeon, unmarried, for six months, renewable. Salary at rate of £50 per annum, with board, lodging, and washing.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge-road, S.E.—Junior Resident Medical Officer and Registrar. Salary £50, with board and washing.

GLASGOW ROYAL INFIRMARY.—Superintendent. Salary £500 per annum, with board, residence, &c.

HAMPSTEAD HOSPITAL.—Resident Medical Officer for six months. Salary at rate of £120 per annum, with rooms, coals, and gas.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—House Surgeon, unmarried, for six months. Salary £20, and board and residence.

JOINT COUNTIES LUNATIC ASYLUM, Talgarth, Breconshire.—Medical Superintendent. Salary £450 per annum, with house, coal, light, and washing.

LANCASHIRE COUNTY ASYLUM, Winwick, Newton-le-Willows.—Assistant Medical Officer. Salary £150 per annum, with board, lodging, and washing.

LONDON HOSPITAL, Whitechapel, E.—Assistant Director of the Pathological Institute. Salary £200 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House Surgeon. Salary £70 per annum, with board and residence.

MEDWAY UNION WORKHOUSE AND SCHOOLS, Chatham.—Resident Medical Officer. Salary £150, with fees estimated at about £160, and apartments and attendance.

NOBLE'S ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY, Douglas, Isle of Man.—Resident House Surgeon. Salary £82 per year, with board and washing free.

NORTH DEVON INFIRMARY, Barnstaple, Devon.—House Surgeon. Salary £80 per annum, with board, residence, and washing.

ROYAL INFIRMARY OF EDINBURGH.—Pathologist. Salary £400 per annum.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Assistant House Surgeon. Salary £75, with board, residence, and laundry.

ST. BARTHOLOMEW'S HOSPITAL.—Assistant Surgeon.

SEACLIFF LUNATIC ASYLUM, Dunedin, New Zealand.—Assistant Medical Officer, unmarried. Salary £250, with board, lodging, and washing.

STOCKTON AND THORNABY HOSPITAL, Stockton-on-Tees.—House Surgeon. Salary £250 per annum.

STROUD GENERAL HOSPITAL.—House Surgeon. Salary £80 per annum, with board, lodging, and washing.

TOTTENHAM HOSPITAL.—House Surgeon. Salary £50 per annum, with board, residence, laundry, &c.

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea, S.W.—House Surgeon for six months. Honorarium of £25, with board and lodging.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Junior House Surgeon. Salary £50 per annum, with board, lodging, washing, and attendance.

WEST HERTS INFIRMARY, Hemel Hempstead.—House Surgeon, unmarried. Salary £100 per annum, with rooms, board, washing, and attendance.

WHITECHAPEL UNION INFIRMARY, Vallance-road, N.E.—First Assistant Resident Medical Officer. Salary £130 per annum, rising to £150, with rations, apartments, coal, gas, and washing.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Two Honorary Assistant Surgeons.

WORCESTER COUNTY AND CITY ASYLUM.—Junior Assistant Medical Officer, single. Salary £140, rising to £160, and all found.

YORK COUNTY HOSPITAL.—Assistant House Surgeon. Salary £80 per annum, with board, residence, and washing.

The Chief Inspector of Factories, Home Office, London, S.W., gives notice of vacancies under the Factory Acts as Certifying Surgeons at Coleshill in the county of Warwick; at Banff, in the county of Banff; at Chatham, in the county of Kent; and at Ross, in the county of Hereford.

Births, Marriages, and Deaths.

BIRTHS.

BRACKENBURY.—On Dec. 25th, the wife of Henry B. Brackenbury, M.R.C.S., L.R.C.P. Lond., of a daughter.

CUTFIELD.—On Dec. 26th, at Merton House, Ross, the wife of Arthur Cutfield, B.A., B.Sc., M.R.C.S., of a son.

DUHIG.—On Sunday, Dec. 29th, 1901, at Little Langtons, Hornchurch, Essex, the wife of David John Duhig, M.B., L.R.C.P., of a daughter.

WALKER.—On Dec. 29th, at Worple-road, Wimbledon, the wife of George Walker, M.R.C.S., L.R.C.P Lond., of a daughter (Mary Hildegard).

DEATHS.

CARRINGTON.—On Dec. 26th, at 8, Battersea-rise, S.W., aged 45 years, Dr. William Henry Carrington, L.S.A., L.R.C.P. (suddenly), youngest son of the late Mr. Frederic George Carrington, *Gloucestershire Chronicle*, Gloucester.

ISACKE.—On Dec. 27th, at Orotava, Teneriffe, Matthew William Stuart Isacke, M.R.C.S., L.R.C.P. Lond., aged 50.

MASON.—On Dec. 28th, at Albany-road, Stroud-green, N., John Wallis Mason, M.R.C.S., L.S.A., in his 80th year.

SHAW.—On the 31st of December, 1901, at the residence of her parents (Dr. and Mrs. Merson), De-la-Pole, Hull, Amy Gertrude, aged 31, beloved wife of J. Custance Shaw, M.R.C.S., L.R.C.P.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

MEDICAL PRACTITIONERS AND THE SALE OF POISONS.

To the Editors of THE LANCET.

SIRS,—The recent edict of the General Medical Council constitutes it "infamous conduct" for a medical practitioner to leave in charge of a medical hall or shop where scheduled poisons are sold to the public, a person not legally qualified to sell these. Now, I am at a loss to know whether by the words "sold to the public" is meant only selling the poisons in their simple (unmixed) state, or does it apply to dispensing medicines containing them to one's patients, for is not the handing over for money of a poison, mixed or diluted, as much a sale as retailing the unmixed article? And is not one's patient a member of the public? Also, is not the place where such mixtures are sold—be it a "surgery," "dispensary," or whatever it may be called—not a "shop" or "medical hall"? If this view be correct every medical practitioner throughout the kingdom who cannot afford to keep a "qualified" dispenser must either have no dispensary or surgery containing scheduled poisons or lock it up in his absence, leaving no one, not even a senior student, far less his wife, family, or domestic, in charge of it. How much more has the long-suffering general practitioner to endure at the hands of the General Medical Council?—I am, Sirs, yours faithfully,

Dec. 30th, 1901. VULNERATUS.

THE DISSEMINATION OF INFECTIOUS DISEASE.

To the Editors of THE LANCET.

SIRS,—A poor woman of my acquaintance recently found her youngest child ill and took him to a large hospital in her district. The malady was pronounced to be scarlet fever. The hospital ambulance conveyed the mother and child back to their one-roomed home with three other child occupants in a house of many tenants. The public medical officer of health acted, I believe, as promptly as circumstances permitted, and in 24 hours or so the fever-stricken patient was removed. Is it impossible for large general hospitals to have an isolation ward where infectious cases might be detained pending their transference to the care of the Metropolitan Asylums Board? Such a course would seem to possess some advantages to

Dec. 28th, 1901. AN OUTSIDER.

MEDICAL AID ASSOCIATIONS AND THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS,—In answer to your correspondent Mr. Harry Clough, in THE LANCET of Dec. 28th, 1901, p. 1848, whose wish seems to be to vindicate the medical aid associations and to champion the unqualified assistant, I would like to offer a few remarks. In the first place let it be understood that I write as a general medical practitioner. The first duty of the General Medical Council is to guard the interests of the public, and though progress is slow and at times erratic some noteworthy successes have been achieved. It is admitted that the general practitioner is a hard-pressed individual, but whose fault is that if not his own? People judge the practitioner very largely as he estimates himself, and if the club doctor values himself at a penny per week he is valued by his patients accordingly. The stringent rule as to unqualified assistants at least prevents men with large club practices from employing these in the same manner as formerly, and makes room for the legitimate article. In other words, it prevents the covered competition that we were at one time subject to. The Midwives Bill has not made much progress, so we can turn to the later effort of the General Medical Council, the veto against the medical aid associations—in plain English a veto against clubs in connexion with insurance companies where canvassing is carried on, and where the bait offered for insurance is the services of a qualified practitioner. I assert, and I think every man with any claim to common sense will give me his support, that professional knowledge cannot be increased by contract work, and to compare it with the training and experience to be obtained at a general hospital is, to say the least, ridiculous. The time at one's disposal is much too short to make a satisfactory examination of the case, let alone to take that thorough interest which is essential to obtain good results. Advertisement is granted, but is it fair to allow one's name to be touted from door to door and one's services held out as an inducement to insure? Does it give true merit the best chance and reward those deserving of reward? I know from experience that the beginner would have a better chance if he took no medical aid work, for I know that whatever work fell to his lot would be done well, and the healthy interest he would bring to bear on the case would have its own reward. The young practitioner does not shine in the public eye as an officer in a medical aid company. When anything serious comes along he is passed over with "he is only a club doctor," and the man who does no club work is employed. The General Medical Council has conferred a very great benefit on the beginner in holding him aloof from such work. Your correspondent points out that medical aid cases are usually trivial, where, then, does the experience that he would have us gain by this means come in? To my mind, it teaches the impossibility (however earnest the man

may be) of attending more than a given number of cases in a manner that will reflect credit on the medical man and the profession. No; contract work is not, and never can be, science. The practitioner is entitled to remuneration for his work and the public is entitled to have the work done in a thorough manner, and not in the slipshod method that club work leads to. Who ever saw a man who adhered to medical aid work rise in his profession? He remains a hack, a common drudge, at the beck and call of every 1*d.* and *½d.* subscriber to the club, and undertakes an amount of work that it is physically impossible to do properly. 3. I would like to see the General Medical Council go one or two better. I would like to see them prohibit contract work absolutely, make a fixed scale of charges and treat the provident dispensary employing canvassers as they have done the medical aid companies. Then, and not till then, will the beginner have an equal chance. He will then have time to study, which is very necessary, he will be able to show some interest in his work, and the public will reap some benefit. Contract work is humbug and no man with broad views on the standing of the profession would be satisfied with it. When the young practitioner gets a few more years over his head time will have probably demonstrated to him the truth of my remarks. His energy would be well spent in other directions instead of championing what is to a great extent the curse of the profession. Apologising for the amount of space I have occupied,

I am, Sirs, yours faithfully,

Leicester, Dec. 28th, 1901. JOHN MACCORMAC.

SECOND-HAND.

To the Editors of THE LANCET.

SIRS,—Will you let me ask through your columns if any of your readers could make use of an invalid's bed-table and a "Turkish bath at home" which will be disposed of at half their cost, although practically as good as new? The bath, one of the sort known as a "Thermal Cabinet," has only been used once or twice. The bed-table is of the ordinary pattern, the heavy foot standing on the ground and the slab turning over the patient's bed and forming a table on which to rest writing materials, a book, or a plate,

I am, Sirs, yours faithfully,

Dec. 30th, 1901. X. Y. Z.

WEIR-MITCHELL TREATMENT.

To the Editors of THE LANCET.

SIRS,—Would any of your readers kindly inform me if there is any hospital or institution in London where a servant could have Weir-Mitchell treatment? I am, Sirs, yours faithfully,

Jan. 1st, 1902. PHENAD.

THE BAEL TREATMENT OF DYSENTERY.

To the Editors of THE LANCET.

SIRS,—As fatal cases of dysentery have been rather numerous among our troops in South Africa, I have frequently wondered whether the Indian bael treatment has been adopted for the cure of that terrible disease. The fresh fruit is undoubtedly the finest remedy for dysentery that could be used; it is extensively prescribed by the medical profession in Calcutta with the very best results. It is not so much used in Upper India, where the bael tree does not appear to thrive so well as in the continuously warmer temperature of the lower provinces. Not being a member of the profession I feel some diffidence in venturing to write these few lines to you on the subject, but I do so as I have known the great value of the bael fruit during my residence in India of over 30 years. I was myself cured of an exceedingly severe and prolonged attack of dysentery by that remedy (albeit from dried fruit in pulverised form) after other treatment had signally failed. The same occurred in the case of one of my children who (while absent from me) was believed to be dying at a hill sanatorium. I was sent for by telegram, and thinking that bael would not be there procurable I took up some powdered bael which was prepared in Calcutta, and with the medical man's permission gave some doses of it to the apparently dying child. It was a very difficult job in his utterly prostrate condition, but the result was that his life was saved. I have known other cases of recovery from dysentery and severe diarrhœa effected by bael, a remedy I always kept in my house in India (I do so still in England), and though I am a layman I have always strongly recommended it for the above very obvious reasons. The tinctures of bael I have not found effective; the fresh fruit, or the powdered, are splendid remedies for dysentery. Bathgate and Co., chemists, of Calcutta, have an excellent preparation of powdered bael which they call "Dietetic Bael." I used this in my own case with perfect success and many others have been grateful to me for telling them of it. In my humble opinion were this preparation to be used freely in South Africa we would not read of many fatal cases of dysentery in the lists of casualties. I write this letter with all due deference to the profession; perhaps you may deem it suitable for insertion in your valuable journal.

I am, Sirs, yours faithfully,

J. E. B. PARSONS, Major-General, I.S.C.

Southbourne, Hants, Dec. 21st, 1901.

*** Bael in the treatment of dysentery has long been well known, and it has been, and still is, frequently prescribed in India. Preparations of the fresh fruit should be used, other forms of it being comparatively inert. Squire and Sons of 413, Oxford-street, London, obtain the fresh fruit direct from India which they keep in the form of a confection. As we are occasionally asked about bael we may say that this preparation of it is a good one and it is occasionally found to be of use in some of the chronic forms of dysentery met with in those who have contracted the disease abroad and returned to this country. For those desirous of trying this remedy the confection makes a palatable and pleasant form in which to prescribe it.—ED. L.

For 35 Years a Subscriber.—1. Yes; the statement that "when the income exceeds £160 but does not exceed £400 a year, an abatement of £160 may be claimed," is quite correct. The abatement should be claimed each year on the same form as that on which the annual return of income is made—the usual six-page buff form. 2. No; repayment cannot be claimed for all the years of overcharge—three years is the limit. 3. Apply to the Secretary, Inland Revenue (Repayment Branch), Somerset House, London, W.C., for the necessary forms, if it is decided to make a claim for repayment.

Doubtful.—The fee would in this case be chargeable to the patient's father who called in the medical man and made use of his services. Such fee is usually one guinea, but, if the circumstances of the man do not permit of his paying it, a lower fee, usually half a guinea, is often charged. The magistrate may be appealed to if the man declines to pay and an order for payment can then be secured, to be presented to the clerk to the board of guardians in whose jurisdiction the patient is.

L.R.C.P.—We could not possibly act as agents in the matter. Our correspondent might write to the Society of Authors, 39, Old Queen-street, Storey's-gate, S.W.

Materfamilias.—Fifty-one years ago. A new edition has just been published by Messrs. John Murray, in a paper cover, admirably printed, price 1*s.*

X. Y. Z.—Cold baths are certainly inadvisable in the circumstances described by our correspondent.

M.I.C.E.—We do not think that our correspondent's theory will hold water at all.

Gee.—The question is purely legal.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (6th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.) St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.) West London (2.30 P.M.), London Throat (2 P.M.).

TUESDAY (7th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

WEDNESDAY (8th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

THURSDAY (9th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

FRIDAY (10th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square, (9.30 A.M.), City Orthopædic (2.30 P.M.).

SATURDAY (11th).—Royal Free (9 A.M. and 2 P.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.)

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (7th).—PATHOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Dr. Poynton and Dr. Paine: The Experimental Production of the Osteo-arthritic Variety of Rheumatoid Arthritis.—Dr. A. E. Eastwood: On the Occurrence of Supra-renal Rest Tumours in the Pelvis.—Mr. L. H. McGavin: Multiple Osteomata.—Mr. H. L. Barnard: Specimens of Intestinal Obstruction from Gall-stones.—Dr. Fairbairn: Renal Tumour.—Dr. Fennell: Congenital Malformation of Heart. A Card Specimen will be shown by Dr. Thursfield.

WEDNESDAY (8th).—DERMATOLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—5.15 P.M. Demonstration of Cases of Interest.

SOCIETY OF ARTS.—5 P.M. Sir Henry T. Wood; Photography and its Applications. (Juvenile Lecture.)

THURSDAY (9th).—BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square, W.).—8 P.M. Annual Meeting. The President: Valedictory Address. Specimens will be shown by Dr. J. A. Mansell Moullin and Dr. F. Purcell.

FRIDAY (10th).—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Papers:—Mr. A. W. Mayo Robson: The Radical Treatment of Chronic Tuberculosis of the Intestines.—Mr. E. P. Paton: A Case of Hair-ball removed from the Stomach of a Child of nine years.—Mr. H. W. Page: Two Cases of Arthritis of the Knee and Leg, with an Investigation into the Pathogenesis by Dr. A. Paine and Dr. F. J. Poynton.

INCORPORATED SOCIETY OF MEDICAL OFFICERS OF HEALTH (9, Adelphi-terrace, W.C.)—7.30 P.M. Meeting. 8 P.M. Dr. D. S. Davies: Plague Exclusion and Control.

LARYNGOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—4.30 P.M. Annual General Meeting. 5 P.M. Ordinary Meeting. Cases and Specimens will be shown by Dr. Bronner, Dr. S. Spicer, Dr. Thorne, Dr. Horne, Dr. Sharman, Dr. Milligan, and Dr. StClair Thomson.

BRITISH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL ASSOCIATION (11, Chandos-street, Cavendish-square, W.).—4 P.M. Cases will be shown and papers read by Mr. C. Wookes, Dr. W. Wingrave, Mr. A. Thorne, Mr. Lennox Browne, Mr. M. Collier, and others.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

WEDNESDAY (8th).—CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL (Gray's Inn-road, W.C.).—8 P.M. Dr. Abercrombie: Nasal Diseases with Obstruction.

THURSDAY (9th).—THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. Fennell: Pathological Demonstration.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index to Vol. II. of 1901, which was completed with the issue of Dec. 28th, and the Title-page to the Volume, are given in this number of THE LANCET.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1901 will be ready shortly. Bound in cloth, gilt lettered, price 18s., carriage extra.

Cases for binding the half-year's numbers are now ready. Cloth, gilt lettered, price 2s., by post 2s. 3d.

To be obtained on application to the Manager, accompanied by remittance.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Jan. 2nd, 1902.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Dec. 27	29·51	W.	...	48	41	33	33	34	Foggy
,, 28	29·53	S.W.	...	50	49	34	39	41	Raining
,, 29	29·13	S.W.	0·27	66	52	41	44	44	Cloudy
,, 30	29·54	S.W.	0·37	64	56	44	52	52	Raining
,, 31	29·90	S.W.	0·12	57	53	52	53	53	Raining
Jan. 1	29·82	S.W.	0·05	68	52	45	44	46	Cloudy
,, 2	29·27	S.W.	0·21	66	51	45	44	47	Cloudy

During the week marked copies of the following newspapers have been received:—*Cambridge Chronicle, Macclesfield Courier, Glasgow Herald, Dundee Advertiser, West Sussex Gazette, Macclesfield Times, Lincolnshire Advertiser, Barking Advertiser, Bolton Chronicle, Liverpool Mercury, Manchester Evening Mail, Kent Messenger, Middlesborough Gazette, Birmingham Post, Aberdeen Press, Yorkshire Post, Cardiff Mail, Sheffield Independent, Sussex Daily News, Walton Gazette, Willshire Mirror, Bradford Observer, Morning Post, Essex Herald, Birmingham Argus, Newcastle Journal, Cambria Leader, Hereford Mercury, Exeter Times, Penrith Observer, Sheffield Daily Telegraph, Bristol Mercury, Dublin Express, Darlington Star, Citizen, Scotsman, Times of India, Pioneer Mail, Huddersfield Examiner, Sanitary Record, Local Government Chronicle, Mining Journal, Merthyr Express, Hertfordshire Mercury, Burton Chronicle, East London Advertiser, Meath Herald, Folkestone Telegraph, Hartlepool Mail, Brighton Gazette, Kent Examiner, Suffolk Chronicle, Rock, Observer (North Wales), Sheffield and Rotherham Independent, Surrey Advertiser, Salisbury and Winchester Journal, Local Government Journal, &c.*

Communications, Letters, &c., have been received from—

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B.—Mr. C. Birchall, Liverpool; Mr. F. A. Brockhaus, Lond.; Messrs. Foster Brown and Co., Montreal, Canada; Dr. J. M. Barbour, Hill Grove, Wells; Miss Bagshawe, Wormhill; Mr. Brocklehurst, Weymouth; Mr. W. H. Best, Ilford; Messrs. Baillière, Tindall and Cox, Lond.; Mr. A. Hamilton Burt, Brighton; Messrs. Burroughs, Wellcome, and Co., Lond.; Mr. A. E. Barker, Lond.; Mr. Georg Bondi, Berlin; Sir W. H. Bennett, Lond.; Mr. J. B. Bamnolkar, Ahmedabad; Messrs. G. Barth and Co., Lond.; Mr. F. Barraclough, Leeds; Mr. S. H. Benson, Lond.; Messrs. F. Bagger and Co., Lond.; Mr. W. B. Bennett, Aigburth; Mr. C. L. Bedford, Birmingham; Mr. G. B. Browne, Lond.

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U.—University of London, The Principal of; Mr. H. Upwell, Lond.

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Y.—Mr. T. Young, Exmouth; York County Hospital, Secretary of.

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